FREE WWW.PERFORMANCEPCCANADA.COM | APRIL 2004 | VOL. 2 No. 4

Performance PC

CANADA'S NEXT GENERATION COMPUTER PUBLICATION

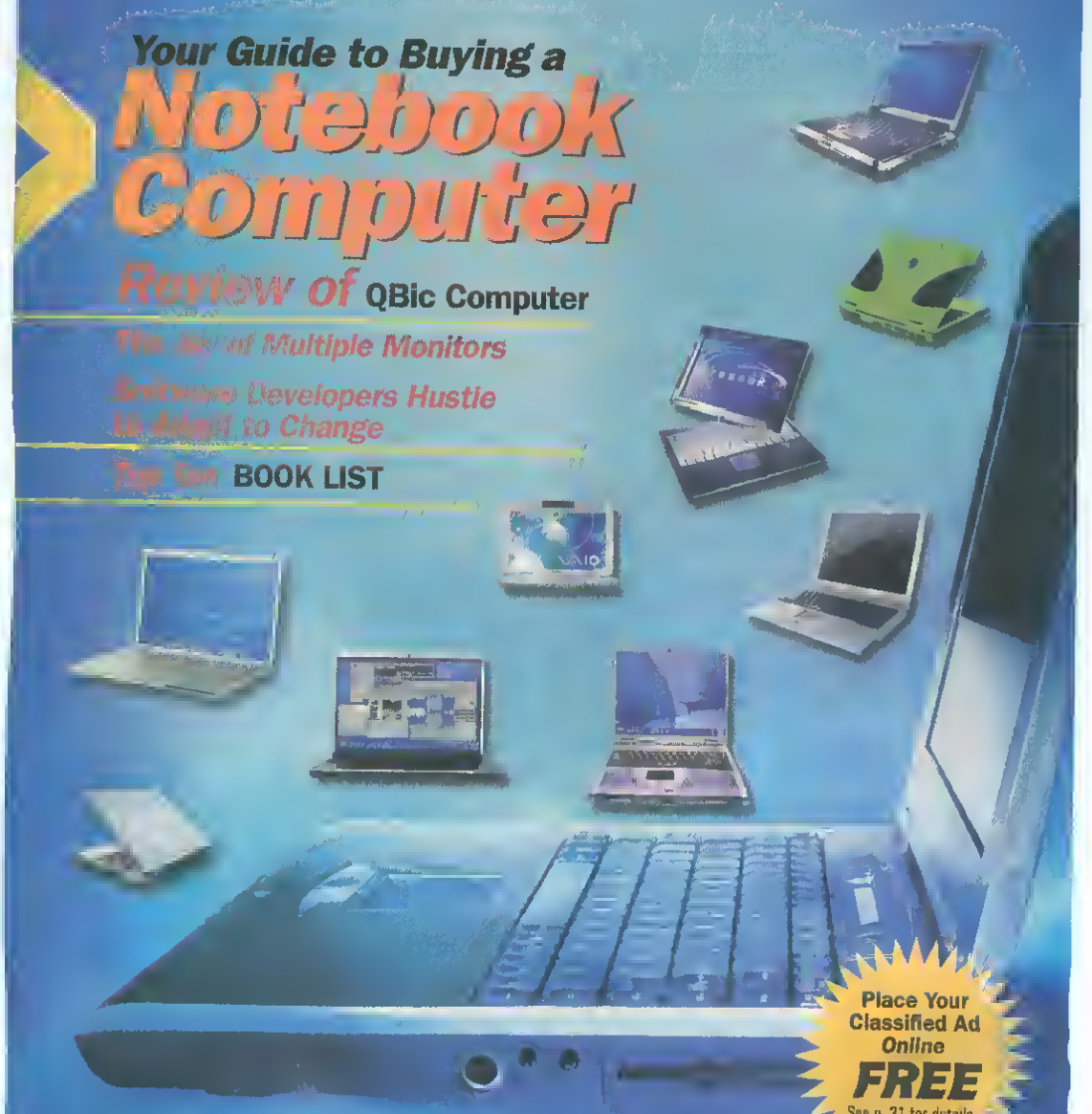
Your Guide to Buying a Notebook Computer

Review of QBic Computer

The Joy of Multiple Monitors

Software Developers Hustle to Adapt to Change

Top Ten BOOK LIST



Place Your Classified Ad Online FREE
See p 31 for details

NCIX.com

Great technology. Great selection. Great Service.

A CHANCE TO WIN

Enter by visiting http://www.NCIX.com/newsletter and get a chance to win:
One of 2 sets of OCZ Enhanced Latency PC3500 1 GIG DDR Dual Channel Kits

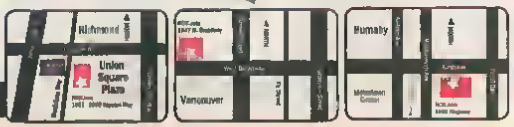
Great deals right into your in box every week!

ENTER TO WIN!

Three Great Locations!

FAST & EASY shipping to anywhere in Canada!

Visit our new store at #1063-8300 Capstan Way, Richmond, BC
RICHMOND STORE OPEN 7 DAYS A WEEK!



NCIX PC PC Builder

YOUR PC BUILT EXACTLY THE WAY YOU WANT

LEASING AVAILABLE, CALL TO DAY

Build your PC online anytime. Share it in our PC Gallery & show it off at NCIX.com!

NCIX PC AMD Value
w/ the AMD Athlon 2500+ Processor with 256 MB DDR, 40 GB Hard Drive, 3.5" Floppy, 48x CDRW/DVD Combo, and 10/100 LAN
$419
Enter SAVINGS CODE 11312-1018

NCIX PC Intel Value
w/ Intel Celeron 2.4 GHz with 256 MB DDR, 40 GB Hard Drive, 3.5" Floppy, 48x CDRW/DVD Combo, and 10/100 LAN
$405
Enter SAVINGS CODE 11313-1018

NCIX PC Entra 2000
w/ the AMD Athlon 2500+ Processor with 512 MB DDR, 300 GB Hard Drive, Radeon 9200SE Video, 52x CDRW/DVD Combo, and 10/100 LAN
$659
Enter SAVINGS CODE 10851-1018

NCIX PC Mini 1000
w/ the AMD Athlon 2500+ Mobile CPU with Kingston Dual Channel 512 MB DDR, 40 GB Hard Drive, Integrated Video, 52x CDRW/DVD Combo, and LAN
$759
Enter SAVINGS CODE 11622-1018

BenQ Monitors

FP731 Black/Silver 17" LCD Monitor
$539.98
Enter SAVINGS CODE 11401-1018

FP567SB 15 Inch LCD Monitor
ENTER YOUR SAVINGS CODE ONLINE for LATEST PRICES
$419.98
Enter SAVINGS CODE 11333-1018

Soltek 7SFRN2-L

Socket A nForce 2 Motherboard
$84.98
Enter SAVINGS CODE 9813-1018

Soltek Q8ic EQ3401A Mini PC Barebones for Intel Socket 478 CPUs
$299.98
Enter SAVINGS CODE 10743-1018

Intel® Pentium®4 2.8GHz

Retail C Version with 3 Year Warranty
$239.98
Enter SAVINGS CODE 9770-1018

800 MHz FSB The P4 processor provides superior performance for users who demand the latest technology

MSI KT8 NEO-FIS2R

Athlon 64 Socket 754 Motherboard
$169.98
Enter SAVINGS CODE 10586-1018

DFI Infinity nForce 2 Ultra 400 with SATA, Firewire, Sound and LAN
$129.98
Enter SAVINGS CODE 11304-1018

Klipsch Speakers

ProMedia Ultra 5.1 THX Certified / 470W
$639.98
Enter SAVINGS CODE 10868-1018

ProMedia 2.1 THX Certified Speakers 160 W
$279.98
Enter SAVINGS CODE 10869-1018

Antec Computer Cases

LANBoy with 350W Antec PSU
$112.98
Enter SAVINGS CODE 9262-1018

Window & FREE Carrying Strap!

Sonata Quiet Case w. Piano Black finish with 380W Antec TruePower PSU
$131.98
Enter SAVINGS CODE 9479-1018

Kingston HyperX

PC3700 512MB Dual Channel Kit
$145.98
(2 x 256MB)
Enter SAVINGS CODE 10001-1018

OCZ PC3200 512MB RAM Copper Heat Spreader
$139.98
Enter SAVINGS CODE 9425-1018

Lite-On 8x DVD±RW

8X/4X/12X DVD ReWriter w/ Software
$159.98
Enter SAVINGS CODE 11597-1018

LG CDRW/DVD BLACK Combo Drive 52x24x52 CDRW/DVD w/ software
$69.98
Enter SAVINGS CODE 10367-1018

Radeon 9600 XT w 128MB

Sapphire Lite with DVI Out & Software
$205.98 OEM
Enter SAVINGS CODE 11184-1018

Soltek nVidia FX5600XT 128 meg VGA, DVI and Video Out
$129.98
Enter SAVINGS CODE 11218-1018

AMD Athlon 64 3000+

The NEXT GENERATION 64-bit processor!
$298.98
Enter SAVINGS CODE 11100-1018

AMD Athlon MOBILE 2500+ XP
The Overclocker's Choice! OEM Mobile CPU
$134.98
Enter SAVINGS CODE 11420-1018

Seagate 80GB HDD

7200.7 80 GB ATA100 Hard Drive
$85.98 OEM
Enter SAVINGS CODE 6470-1018

Seagate 120GB Hard Drive
7200.7 120GB ATA100 / 8MB Cache
3 Year Warranty
$121.98 OEM
Enter SAVINGS CODE 10866-1018

FREE NEXT DAY SHIPPING IN GREATER VANCOUVER

On any order valued over $200 purchased before May 31st, 2004 *

* See NCIX.com website for details and other Vancouver Lower Mainland areas where this promotion is available.

Prices valid until April 31st, 2004, while supplies last. Subject to Change Without Notice.

NO HIDDEN FEES!

We gladly accept Money Orders, Visa, MasterCard, American Express, Diner's Club & PayPal.

FAST & EASY shipping to anywhere in Canada!

THREE GREAT LOCATIONS!

BURNABY 5068 Kingsway, Burnaby, BC, V5H 2E7 PH: 604.451.8682 FAX: 604.451.8611

VANCOUVER 1843 W Broadway Vancouver BC V6J 1Y5 PH: 604 739 9985 FAX: 604.739 0513

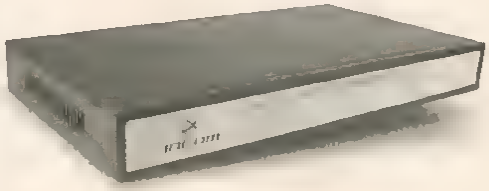
RICHMOND #1063 8300 Capstan Way Richmond BC, V6X 4J7 PH: 604.233.0300 FAX: 604 604.233.0313

Toll Free 1-888-NCIX888

M-F 9:30 AM to 6:30 PM Sat: 10 AM to 5:30 PM (PST)
M-F 9:30 AM to 6:30 PM Sat: 10 AM to 5:30 PM (PST)
M-F 9:30 AM to 6:30 PM, Sat & Sun: 10 AM to 5:30 PM (PST)

Combine **two** broadband connections! Increase your bandwidth!

TWIN WAN ROUTER



Features

- High Performance NAT Router
- Hardware Based SPI Firewall
- DHCP Server & Multiple DMZ
- URL Blocking & Virtual Servers
- SNMP Remote Management
- HTML GUI Interface
- 5-year Warranty with Lifetime Tech Support & Firmware Updates

DSL, Cable, and/or T1

When utilizing the combined bandwidth of two separate broadband connections at the same time, the XiNCOM Twin WAN Router truly brings you ***the T1 alternative!***

Overview

XINCOM's Twin WAN Routers provides a secure and reliable connection to the Internet and corporate network connectivity to small branch offices and small to medium sized businesses. These routers have dual WAN ports that allow you to connect two separate broadband connections of any type, including Cable, DSL and/or T1 for ultimate automatic fail-over, and load balancing. With cutting edge features like NAT, SPI Firewall, DHCP server and Access Filters makes this a must have for any network.

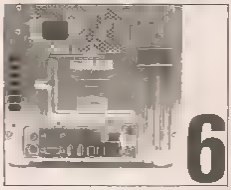
TWIN WAN ROUTERS

XC-DPG502 TWIN WAN ROUTER
w/ 44 Mbps, QoS, and uPnP ..... MSRP **$299.00 USD**

XC-DPG402 TWIN WAN ROUTER ..... MSRP **$249.00 USD**
w/ 12 Mbps throughput

XINCOM
Visit www.xincom.us

[illegible] The XiNCOM logo, company name, the T1 Alternative and cutting edge innovations are trademarks or registered trademarks [illegible] States and/or certain other countries. Information is subject to change without notice. Copyright © 2004 XiNCOM, Inc. All rights reserved.



April 2004 VOL. 2 No 4
www.performancepccanada.com

Product Review

QBic 6

Feature

The Joy of Multiple Monitors 8
Software Developers Hustle to Adopt to Change 12
Your Guide to Buying a Notebook Computer 14
Publisher's Pick - Top Ten Book List 27
Software Developers Hustle to Adopt to Change 12

Book Review

Hardware Hacking for Geeks 28

Inside the Bubble Excerpt

Business Model of the month 22

Columns

Company Directory 30

performancePC
CANADA'S NEXT GENERATION COMPUTER PUBLICATION
April 2004 VOL 2 No 4

Executive Editor
Geof Wheelwright
editor@performancepccanada.com

Senior Writers
John Okill
Douglas Alder
Trevor Greene
Keith Schangdi Raberts
writer@performancepccanada.com

Associate Publisher / Art Director
Sharly Ho
design@performancepccanada.com

President / Publisher
Joshua Paul
publisher@performancepccanada.com

Ad Sales
sales@performancepccanada.com

Ad Coordinator
adco@performancepccanada.com

Distribution
distribute@performancepccanada.com

For information on advertising, Call 604-638-0668
#208 425 Carnall St Vancouver BC Canada V6B 6E3

PerformancePC Magazine Vancouver's next generation computer publication is published monthly by Neo Code Software Ltd in Vancouver. Although the contents of this publication are derived from sources that are reputed to be accurate and believable the publisher assumes no responsibility for any omissions errors or implications. Claims made in advertisements or editorials do not necessary reflect the views of PerformancePC Magazine.

The publisher reserves the right to refuse advertisements and editorials. Unless authorised by the publisher reproduction of any part of PerformancePC is prohibited. All rights reserved

Canadian Publication Mail Sales Product Agreement #40051604
Printed in Canada

SKYWAYWEST
BUSINESS INTERNET SERVICES
info@skywaywest.com www.skywaywest.com
604 482 1225

Full service Internet Service Provider

- Reliable Access and Excellent Service
- Power-up your LAN with Business Class ADSL, Wireless and Fibre Access
- Internet phone and Private Networks Co-locates, Web and FTP Hosting Email and Domain Name Services

Serving BC and Alberta.

since 1998

Subscribe to performancePC NOW!

Please send subscription to PerformancePC
One year subscription CDN $50.00

I'm paying the full amount by ☐ cheque ☐ money order payable to Neo Code Software
☐ Visa card# _____
☐ Master Card card# _____
expiration date _____

Name of subscriber _____
Company (if applicable) _____
Address _____
City _____
Province _____
Postal Code _____
Phone number _____
Email _____

* subscriptions are non-refundable but transferable.

Please send this form to PerformancePC
#208 425 Carnall St Vancouver BC Canada V6B 6E3 Website www.performancepccanada.com
Tel 604 638 0668 Fax 604 638 0666 nFax 604-608-3431 Toll Free 1-888 748-0668

Times are changing

By Geof Wheelwright

So just where is innovation in the technology sector being created – and how does that benefit us, the people supposed to use the technology? That's been the question much on my mind over the last few weeks as I have visited with some of the companies that you might reasonably expect to be innovators and leaders in the sector.

I first visited with a company called Novell at its annual Brainshare conference in Salt Lake City. The real innovation at that conference was all taking place around the Linux operating system – and its inventor Linus Torvalds was there to whip up the crowd of more than 6,000 enthusiastic developers, network administrators and Novell fans. Novell, you may recall, made a name for itself as the company that pioneered network operating systems and created Novell NetWare in the process. These days, however, Novell innovates by championing Linux and the "open source" development idea.

The idea of open source is a positive innovation for the technology industry and one that has really been a little misunderstood. In many cases, it has been characterized as simply free software – and yet it's a lot more than that. Open source means that developers have access to the source code, for example, of the Linux operating system – meaning that they can "add value" to it by customizing it and sharing their work in others.

In the Linux world, you make a living by selling implementation services, consulting and training – as well as specializewd applications – "up the stack" from the operating system level. One key impact of this philosophy is that it provides a way to eliminate the "monopoly tax" that detractors say is imposed by Microsoft and Intel in the pricing of its respective Windows software and Pentium processor products. Linux can be obtained for free and runs on a variety of processors – including some that are not made by Intel.

My innovation journey took me next to Microsoft – and, in particular, Microsoft Research. It spends a small portion of Microsoft's annual $6.8 billion research and development budget at facilities in Redmond, Washington, California, the United Kingdom and China. And the company works in 55 different research projects in those facilities, including speech recognition, wireless networking, imaging, human/machine interfaces and database management.

And some of those projects are very cool – from using wireless networking to help you find exactly where you are at any moment in time to using digital pictures to create a visual timeline of your life. Innovation at Microsoft Research, however, is all about getting research published, presenting it at academic conferences and having it incorporated in Microsoft products.

If you've ever used Microsoft Reader for reading an eBook, you will have seen Microsoft Research's ClearType technology. If you have used the speech recognition in Microsoft Office, that too came from Microsoft Research.

But at Dell Corporation, which was the last stop on my innovation journey, innovation lies in the way it sells and distributes – not necessarily in its products. While Dell produces good PCs, printers, PDAs and a quite acceptable MP3 player, its real innovation has been in its direct model for selling and distributing its products. And that's why it has grown to enjoy revenues of more than $40 billion annually – and build a cash war chest of something like $8 billion (and growing ever quarter).

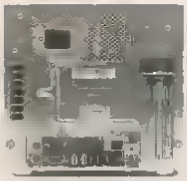
So at Dell, innovation is about reducing costs, improving profitability, delivering direct to customers (without the cost of a "middle man") and having a "zero inventory" manufacturing process.

And having been on several Dell factory tours, I have to admit that the manufacturing process is pretty innovative – trucks with parts drive up to one side of the factory and completed computers come out the other end and get loaded onto the trucks that will deliver them to customers. And every computer that Dell makes it already sold (and usually) already paid for. This gives Dell a HUGE advantage over anyone else making PCs. It's also good for anyone who buys a Dell PC in that the company can offer lower-priced PCs and they can make them to order.

So that's three different views of innovation in the tech sector. Feel free to email us with your views on what technology innovation means to you.

QBic

By Douglas Alder



Computer:	QBic
Manufacturer:	Soltek
Price as configured:	$759
Configuration	512 MBs RAM, (the system shows as only 480 MBs as the video chip takes 32 MBs for itself) 40GB Seagate 7200, Athlon 2500 (1.67Ghz) Mobile Chipset, LG DVD/CD-RW Combo Drive, backpack.

The QBic is a bare-bones, small-profile PC, manufactured by Soltek, a Taiwanese computer manufacturer. The unit is small enough to lug around, in fact it comes with a backpack carrying case in the box.

The unit I received for review shipped with 480 MBs of RAM, an Athlon 1.87 GHz processor with 64 Kbytes of Level 1 Cache, 512 Kbytes of Level 2 Cache. There was a 40 GB Seagate 7200 drive, as well as a DVD/CD-RW drive installed. Software installed on the hard drive was just the basic Windows XP install and a few manufacturer utilities. There is no floppy drive in the default configuration, though there is room for one should it be required. There is also an option to add a parallel port on the motherboard. The unit has two DDR DIMM 184 pin slots. The system can handle AMD Athlon, Athlon XP and Duron processors, with up to 333 MHz system bus.

On the front of the unit is a push-and-pop panel door that hides two USB 2 ports and a Firewire port. There are also headphone, microphone and SPDIF (Sony/Philips Digital Interface) connectors on the front to allow the transfer of digital audio without the loss of quality that occurs when converting from an analog format. Another push-and-pop panel cover hides where a floppy drive could go.

The back of the unit has three thumb-screws that do not require a screw driver to open. Adding a hard drive, or RAM is fairly straightforward for the do-it-yourself crowd, though the inside of the case is fairly cramped, as with most of these smaller units. There is room for a single PCI card and an AGP slot. The unit has a 250-Watt power supply, which should be plenty of power for the upgrades possible for this compact computer. The back panel also includes two more USB 2.0 ports and two Firewire ports on the back of the computer.

The video system is a North Bridge nVIDIA nFORCE1 IGP, for Integrated Graphics Processor. Translation, there is no video card, the graphics chip is built right on the motherboard. The good part of this equation is that the nVIDIA chip supports two monitors for people who like extra screen real estate. The system also has an S-Video TV out port to display your Windows screen on a television set.

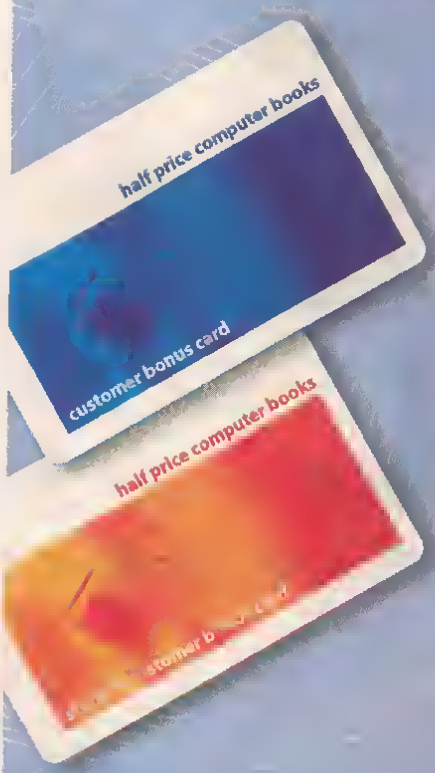
Another bonus for this multi-media friendly system is 6-channel audio support. The back panel has three sound connectors to plug a set of six speakers into. There is software support to configure this sound system through the nVIDIA nForce Control Panel.

The cooling system on this unit is quite elaborate. In addition to the standard heat sink on top of the CPU with a small fan mounted on top. There is a larger fan that is designed to pull the hot air from the top of the CPU fan out of the case. Finally, the sides, back and bottom of the computer case are all perforated to improve airflow. All these features are required in order to house the increasingly high speed, and correspondingly heat intensive, processors in such a small case. Despite what it says on the side of the box, this is not a particularly quiet computer. It makes as much noise as all my other computer equipment put together. There is a quiet mode setting in the BIOS, but it doesn't quiet it down that much.

Who should buy this unit? The QBic computer is small enough to be in the running for gamers who like to travel for LAN parties. The unit can be over-clocked and there is an AGP slot for a better video card. The unit reviewed even came with its own matching backpack to load the computer into. Another target group might be home video editors who want a unit with three Firewire ports, SPDIF audio, dual monitor capability built-in and S-Video out capability. Configuring the unit for video would suggest packing in large, fast hard drives. Finally, the unit is small and attractive enough to sit in a media room for video playback, although the fan is a little noisy in it's default setting and may be distracting.

Douglas Alder was the founding editor and publisher of the now-defunct publication The Computer Paper. He currently does FileMaker consulting and database development as HomeBase Internet. www.hbase.net

half price computer books



Customer Bonus Sale!

Special discounts for Customer Bonus Card holders for the entire month of April!

60% off all regular-priced books in stock!

25% off all New & Notable books in stock!

Sign up for our free Customer Bonus Card and get the discount *instantly!*

Sign up for our Half Price Computer Books Customer Bonus Card, and your book purchases can add up to Half Price Computer Books gift certificates! For every $400 you spend at Half Price Computer Books, you get a gift certificate for $40. Students get a $20 certificate for every $200 in purchases with our Student Customer Bonus Card and valid student ID. Signing up is **fast, easy** and best of all, **free** - just ask a sales associate!

HALF PRICE COMPUTER BOOKS

Vancouver
520 West 8th Avenue
604-876-1007

Vancouver
550 Seymour Street
604-688-7791

Burnaby
4269 Lougheed Hwy.
604-291-1033

Victoria
160-2950 Douglas St.
(250) 361-4846

Coquitlam
140 Schoolhouse Road
604-521-3905

Visit Us Online
www.halfpricecomputerbooks.ca

By John Okill

The Joy of Multiple Monitors

Do you find that you are constantly Alt+Tab-ing through your applications? Do you have a decent-sized monitor but find yourself wanting more display real estate? Maybe what you need is a multi-monitor setup for your system! I was first introduced to this concept in the workplace, and was soon spoiled for anything less, and found out what was needed to replicate this setup at home.

The benefits of having multiple monitors should be obvious – more screens means you can see more of your applications actively running at once. In the setup I am using as I write this, I have a 17" Samsung flat panel display running of an ATI Radeon card, and a separate old Sylvania 17" CRT adjacent to it running off a generic PCI-based video card. Both are set to the same resolution and I can move my mouse seamlessly between the two monitors to access various applications. As I write this article on my "main" screen I surf the Web on the other one for research, all the while keeping tabs on my CD-ripping program which is chugging away in the background. Other times I have used this arrangement to compare twin documents at a glance, write Web code on one screen while uploading it to another, and even do some word processing on one screen while watching a movie on the other. It's not hard to come up with your own uses for such a handy monitor arrangement.

A few years ago having more than one monitor might have seemed a real extravagance for most people. But as monitor prices continue to drop, and the technology readily available, the only real limitation to expanding your virtual desktop is the size of your physical desktop and the dimension of your monitors.

What You Need

Starting with Windows 98 Microsoft built multi-monitor support directly into this and all of their subsequent operating systems. With this underlying OS support, all that you now need is either a single video card containing multiple monitor ports, or two separate video cards for your computer.

There are a number of companies that sell video cards containing multiple video ports, including ATI, nVidia and others. In this case setup is pretty straightforward, as the underlying driver software supplied by these manufacturers makes things straightforward. The only thing to be aware of is that many video card with multiple monitor outputs supply one analog and one digital DV-I connector, so make sure that your monitor connections support these formats, or check the box to see if adaptors for other formats are included. It's a rude surprise to buy a dual monitor video card and then discover you don't have the right connector for one of your two monitors.

The other option is to use two (or more) video cards. If you have a motherboard that has a built-in video connection, you can add another card to the open AGP (Accelerated Graphics Port) slot that is standard on all current motherboards. (Note that this is not always a sure-fire thing, as not all motherboard with built-in video are capable of driving

MEGADEALS

888.838.8829

TigerDirect.ca HOT DEALS!

The Best Computer Deals Anywhere, Anytime.

EyeQ 3340Z 3.1 Megapixel

- 3.1 Megapixel • 3X Optical Zoom
- 4X Digital Zoom • SD Digital Media
- 1.5" TFT LCD

$165.99

#C331-1006

8X DVD±RW Dual Format Drive

- 8x4x12x DVD+RW • 4x2x12x DVD-RW
- 40x24x40 CDRW • IDE connection
- Easy setup—burn movies in minutes

$133.99*

#1606-2006

*After Rebate

7-in-1 Media Card Reader

- USB 2.0
- Supports Compact Flash Type I and II, Micro Drive, MMC, SMC, SD and MS
- Easy to use
- Plug and Play

$6.00*

#S452-1104 *After Rebate.

FREE SHIPPING

HURRY! LIMITED TIME OFFER!

BenQ PB6200 Projector

- 1700 Lumens
- XGA 1024x768
- Weighs just 5.6lbs

$2099.99

#8145-7400

Systemax Intel Centrino 1.5GHz Notebook

Built-In 802.11b WiFi Wireless LAN With Intel® Centrino™ Mobile Technology!

- Intel Centrino Mobile Technology With Intel Pentium M Processor 1.5GHz
- Microsoft® Windows® XP Home
- 15" XGA Screen
- 256MB DDR PC2100 Memory
- 40GB Hard Drive
- DVD/CD-RW Combo Drive
- Intel 802.11b Wireless LAN With Intel Pro/Wireless network connection
- 3-in-1 Media Card Reader
- S-Video Output
- 3 USB 2.0 Ports and 1 Firewire Port
- PC Card Slot
- Lightweight Design

NEW!

$1539.99

#SYX-PM-036608

NETGEAR Router and PC Card

54Mbps WIRELESS 802.11b COMPATIBLE

$160.99*

#N160-1554 *After Rebate

- Wireless 100Mbps "G" Cable/DSL Router with 4-port LAN
- Wireless 54Mbps "G" PC Card
- 802.11b backwards compatible

1.44MB USB Floppy

YE DATA

- Ultra Slim Design
- Plug and Play
- Power Save Mode
- USB Powered—No external power needed
- Reads and writes to any 1.44MB Floppy

$55.99

#Y26-1608

ZIP-LINQ Road Warrior Kit

- Optical Mouse, USB cable, RJ/45 cable and RJ/12 cable.
- USB Light

$48.99

#C250-2178

Sceptre X9g 19" LCD Monitor

19" BLACK LCD

- 18-inch LCD screen
- 700:1 Contrast Ratio
- 1280x1024 max. res.

Just $698.99

#S187-1866

Systemax AMD Athlon 64

Systemax recommends Microsoft® Windows® XP

- AMD Athlon 64 3000+ Processor
- Microsoft® Windows® XP Home Edition
- 1024MB DDR PC2700
- 120GB 7200 RPM Hard Drive
- DVD-RW
- ATI Radeon 9200 SE 8X AGP with 128MB
- Onboard Audio
- 7 in 1 Digital Media Reader/Writer
- 10/100 LAN and 56k Modem
- USB 2.0 and Firewire Ports
- Logitech Internet Keyboard and Optical Mouse
- Black Mid Tower ATX Case w/300 Watt P/S

NEW!

Just $1329.99

#SYX-PM-036674

1200VA/670 Watt UPS

- RJ/11-RJ/45 Outlets
- 1200VA/670 Watt
- 6 Outlets

$139.99

#820-7670

Samsung 173s 17" LCD

LOWEST PRICED MONITOR!

- 1280x1024 Max. Resolution
- .264 mm
- 450:1 Contrast

$565.99*

#S203-1704 *After Rebate

MX Duo Cordless Keyboard and Mouse

Logitech

- Cordless Keyboard and Mouse
- USB and PS/2 connection
- Scroll back and forward buttons on mouse

$99.99

#L23-6224

Sharp LCD 17" Wide Screen

Built-In TV Tuner

- 1280x768 Resolution
- TV Tuner Built-In
- 0.269mm dot pitch

$881.99

#S339-1706

XFX FX 5200 AGP Video Card

- nVidia GeForce FX 5200 Chipset
- 128MB DDR
- 8X AGP
- TV Output
- Max Res 2048x1536
- 8.4GB Memory Bandwidth

$90.99

#P450-6802

Classic 10GB Hard Drive MP3 Player

Up to 166 hours of MP3 and WMA music!

- 10GB Hard Drive
- USB • Large LCD

$139.99

#C332-1002

EPSON All-In-One Printer

- 22 ppm Black/ 11 ppm Colour
- Borderless Printing
- 48-bit Scanner
- Easy Photo Fix Software

$209.99*

*After Rebate

#E17-3443

FREE SHIPPING

HURRY! LIMITED TIME OFFER!

CALL NOW!

BUY TODAY...IT SHIPS TODAY! COMPUTERS, COMPONENTS AND MORE!

888.838.8829

OR SHOP ONLINE: www.tigerdirect.ca/c REGISTER NOW FOR OUR E-MAIL DEALS NEWSLETTER!

two displays simultaneously – look up the specs on your motherboard on the manufacturer's Web site first). If you already have a video card in your computer – most likely in your one-and-only AGP slot – you can obtain an older PCI-based video card to act as your second connection. Images that cannot be processed directly by your secondary video card are offloaded to your computer's CPU, which can slow things down overall performance considerably, so the more memory and processing power you can get in your secondary card, the better.

As for the second monitor, prices are getting cheaper and cheaper, especially for CRT models, as they are slowly being replaced by LCD screens in the marketplace. Better yet, look for a used monitor, which will be cheaper and ought to last you until LCDs become ubiquitous. As always when buying a monitor, try not buy purely on size alone, but also consider dot pitch (the smaller the better) and the refresh rate of the monitor, which ought to be 75 hertz or higher to eliminate noticeable flicker.

Once you have obtained the necessary hardware, set up your monitors, plugged in your video card(s), and have generally booked everything together, fire up your computer. Now the fun begins!

Software Setup

You can expect at least one of your monitors to remain blank at first. That's because your computer hasn't been told to use the second monitor attached to it as yet.

To change your monitor setup, from the Start menu click Control Panel, and then choose Display. Click on the settings tab and you should see a couple of blue squares with numbers inside them. Click on the unselected square and then click "Extend my Windows desktop onto this monitor". Click Apply and the second monitor should flicker to life. Now you can adjust such things as screen resolution, colour quality and the refresh rate of your new screen. Ideally, you will want to set both monitors to the same resolution, if only so that your mouse doesn't seemingly "disappear" when you move it outside the display range of one monitor to the other. If you are still not sure which monitor is controlled by which video card, click the Identify button and a big number should appear on each screen, identifying which it is. If you get through this and you are still only getting a display on one screen (or worse, none at all), take out the PCI video card and try moving it to another available slot.

Windows ought to recognize the two screens as contiguous, so that you can smoothly glide your mouse back and forth between the two screens, popping out of the right side of one and immediately appearing on the other. If you do not have this arrangement, you need to change the order in which your screens appear in the Display Properties dialog. All you have to do is click and hold on one of the two blue boxes, and then move it over to the other side of the initial blue square. Click Apply and the two screens will switch, and should now allow you to glide your mouse effortlessly between them. You should now be set up for multiple-monitor fun!

Some Things to Keep in Mind

Having multiple monitors does take a little bit of getting used to. For example, you may find yourself looking for a search dialog for your active program, only to find that it is being displayed on the other screen, perhaps under one (or two) other windowed applications. Also keep in mind that you should drive graphics- and memory-intensive applications like games and video playback to the monitor driven by the most powerful video card on your system (assuming you are using two separate display devices instead of a single card with dual video outputs). And no matter how you slice it, even if you are using flat screen displays, you will discover you have a lot less physical space on your desk.

While this articles looks at only a dual monitor setup, all of the information here applies to three or more monitors. In fact, it is possible under Windows 98 and higher to connect and work with up to nine monitors from one computer, though any more than three is rare, if only from the perspective of having enough space on your physical desktop for so many monitors, as well as the number of available display slots on your computer's motherboard.

It's safe to say that once you switched on to using multiple monitors, you will never look back. You will wonder how you ever coped with just a single monitor.

www.sbstechservices.com

Q1. Ans. Why is a serviced machine from SBS Tech is like a professional ghost? Because it gives your business such a start!!

Q2. Ans. Why is a laser toner from SBS Tech like a mother in law? Because it goes on and on and on.....

SBS Tech Services, Inc. Tel: 604-418-6823/778-893-1128/604-821-1451 Fax: 604-821-1456 e-mail: support@sbstechservices.com

Your one window solution for all your service, supply needs for printers, faxes, copiers & networking.

For update Price: **www.vastechcomputer.com**

VASTECH

Shopping Online

sales@vastechcomputer.com
info@vastechcomputer.com
support@vastechcomputer.com

3967 Main St. Van,BC
TEL:604-872-4245
TEL:604-872-4215
Business Hours
Mon to Sat
10:00AM ~ 7:00PM

Parking @ Rear

AMD Athlon 64 bit Machine

Athlon 64 bit - 3000+ —— $1288

Gigabyte K8VT800 MB / (8M) 120G 7200rpm HDD
1.0GB 400 DDR / ATI Radeon9600Pro 256MB DDR
LG 4081B 8x DVD+R / 4x DVD-R / DVD+RW
LG 16x DVD Drive / 10/100 LAN / 6-Channel Sound
MS Media Keyboard / MS Optical Mouse / 1.44M FDD
(Black or Silver) RAIDMAX Dual Fan 420W w/ Side Window 3x Case Fan

Super Saving:

Zippy WK720 Aluminum Keyboard (USB)——$39.99
100pcs Blank CD-R Disk / 25pcs DVD-R——$30.99 / $28.00
L&C P4-300W ATX Power Supply——$15.99
Asus A7N8X-X Nforce2400 AGP8X Motherboard——$89.99
LG4081B 8xDVDRW + 25pcs DVD-R Blank Disk——$147.99
Samsung 763DF 17in 1280x1024 Flat Monitor——$189.99

Intel P4 (800FSB) Drame Machine

Intel P4-3.0G (800FSB) —— $1388

Asus P4C800-E-DX MB / (8M) 120G 7200rpm HDD
1.0GB DDR RAM / Radeon9600Pro 256MB DDR
LG 4081B 8x DVD+R / 4x DVD-R / DVD+RW
LG 16x DVD Drive / 10/100 LAN / 6-Channel Sound
MS Media Keyboard / MS Optical Mouse / 1.44M FDD
(Black or Silver) RAIDMAX Dual Fan 420W w/ Side Window 3x Case Fan

All system have a 3 year labor & 1 year parts limited warranty. Plus 1 month free internet with 56K V92 modem purchase only. Financing from 3 to 36 months (3% to 16%)

AMD Value

Finance From $10 / Month — only **$319**

AMD Duron 1.6G
ECS L7VMM2 ALL-IN-ONE MB
256MB DDR RAM
40GB 7200rpm Hard Drive
52 X CDROM Drive
1.44M FDD / 10/100 NIC OB
Integrated 3D graphic + AGP Slot
17"ATX Tower Case with 300W
Keyboard / Wheel Mouse / Speakers

XP Power

Finance From $17 / Month — only **$499**

AMD XP 2500 + (BARTON)
Asus A7V8X IEEE1394 USB2.0 AGP8X MB
256MB DDR RAM / 6x USB / 2x IEEE1394
80GB 7200rpm Hard Drive / 2 S-ATA ports
16x DVD Drive / 3D Sound Integrated
Sony 1.44M FDD / 10/100 NIC Integrated
ATI Radeon7000 64M DDR AGP TV-OUT
17"ATX Tower Case with 350W + Case Fan
Wheel Mouse / Keyboard / Speakers

XP Gamer

Finance From $23 / Month — only **$669**

AMD XP 2600 + (BARTON) CPU
GA7VT600L DDR400 USB2.0 MB
512MB PC3200 DDR 400 RAM
80GB 7200rpm Hard Drive
52x32x52 CDRW + Software
Sony 1.44M FDD / 6 channel Sound
Radeon9200se 128M DDR TV-OUT
10/100 Network Card Integrated
17"ATX Tower Case with 400W
Logitech Deluxe Keyboard
Logitech Wheel Mouse
2.1 Speaker + Wooden Subwoofer

XP Premium

Finance From $31 / Month — only **$859**

AMD XP 3000+ (BARTON) CPU
GA 7N400Pro2 Dual Channel AGP8X MB
512MB PC3200 DDR 400 RAM
(8M) 120GB 7200rpm Hard Drive
52x32x52 CDRW + Software
FDD / 10/100 LAN / 6 channel sound
Nvidia FX5200 128MB AGP8X
17"ATX Tower Case with 400W
Logitech Internet Keyboard
Logitech Cordless Optical Mouse
2.1 Speaker + Wooden Subwoofer

Intel Value

Finance From $20 / Month — only **$369**

Intel Celeron 2.4G
Asus P4SGX-MX USB2.0 AGP4X
256MB DDR RAM
40GB 7200rpm Hard Drive
52X CDROM Drive
1.44M FDD / 10/100 NIC OB
Integrated 3D Graphic Power
17"ATX Tower Case with 300W
Keyboard / Wheel Mouse / Speakers

P4 Power

Finance From $20 / Month — only **$599**

Intel P4 - 2.8G(533FSB)
Asus P4S8X-X (533FSB) USB2.0 MB
256MB DDR-RAM / 8x USB Ports
80GB 7200rpm Hard Drive
16x DVD Drive / 6 Channel Sound
Sony 1.44M FDD / 10/100 NIC
ATI Radeon7000 64M DDR AGP TV-OUT
17"ATX Tower Case with 350W + Case Fan
Wheel Mouse / Keyboard / Speakers

P4 Gamer

Finance From $25 / Month — only **$749**

Intel P4 - 2.8G (800FSB) CPU
Asus P4S800 AGP8X (800FSB)
512MB PC3200 DDR 400 RAM
80GB 7200rpm Hard Drive
52x32x52 CDRW + Software
Sony 1.44M FDD / 6 channel Sound
Radeon9200se 128M DDR TV-OUT
10/100 Network Card Integrated
17"ATX Tower Case with 400W
Logitech Deluxe Keyboard
Logitech Wheel Mouse
2.1 Speaker + Wooden Subwoofer

P4 Premium

Finance From $32 / Month — only **$899**

Intel P4 - 3.0G (800FSB) CPU
Asus P4P8X-se AGP8X (800FSB)
512MB PC3200 DDR 400 RAM
(8M) 120GB 7200rpm Hard Drive
52x32x52 CDRW + Software
FDD / 10/100 LAN / 6 channel Sound
Nvidia FX5200 128MB AGP8X
17"ATX Tower Case with 400W
Logitech Internet Keyboard
Logitech Cordless Optical Mouse
2.1 Speaker + Wooden Subwoofer

Price & availability are subject to change without notice. All trademarks & brands are properties of their owners. All advertised prices reflect 3% cash or interac discount. We reserve the right to correct typographical errors.

Notebooks:

ASUS A2H / P4 - 2.8G / 512M / 40G / Combo / IEEE1394 / USB2.0 / Modem / LAN / 16in TFT——$1340
ASUS Z8000 / Centrino 1.5G / 512M / 40G / Combo / IEEE1394 / USB2.0 / Modem / LAN / 15 in TFT——$1540
Acer AS1601LC / Athlon 64-M 3000+ / 512MB / 40GB / DVD-CDRW / 16" TFT / 56K / 802.11g WLAN / Gigabit LAN / XP H——$2000
Acer Ferrari 3000 / XP M 2600+ / 512M / 60G / DVDRW / IEEE / USB2.0 / Modem / LAN + W LAN / 16in TFT / XP H——$2425
Acer Aspire AS1358LC / Athlon XP-M 2400+ / 512MB / 40GB / DVD-CDRW / 15" TFT / 56K / LAN / XP Home——$1315
Acer Tablet PC TMC301XCi-G / 1.5GHz / 512MB / 40GB / 14.1" / Ext. CDRW-DVD / 56K / 802.11g WLAN / XP Pro Tablet Edition-$2290
Fujitsu LifeBook C2240A / P4-2.8GHz / 512MB / 80GB / DVD-RW / 15" TFT / 56K / NIC / 802.11g WLAN / XP Home——$2075
Fujitsu LifeBook T3010 / Centrino Pentium M 1.4GHz / 256MB / 40GB / 12.1" TFT with EM Digitizer / 56K / WLAN / NIC / XP Tablet-$2385

Barebone system

Asus P4SGX-MX+ Intel Celeron 2.4G+ Tower Case——$189
ASUS PUNDIT BOOK SIZE——$239
——$285

With system purchase only
MS Win XP Home / PRO——$120 / $182
MS Office2003 SBE / PRO——$288 / $399
MS Office2003 Basic / Work suite2004——$220/$70
Norton AntiVirus2004 / Security2004——$35 / $45
Norton system works2003——$26
Win 98 pre 1.0.03——$98
Corel Word Perfect Version11——$33

Motherboard for Intel

Asus P4P800-V / P4P800——$137 / $142
Asus P4C800-V / P4P800-DX——$ / $
Asus P4S800 / P4SGX-MX——$ / $67
Asus P4P8X-se (800FSB) AGP8X——$157

Motherboard for AMD

Asus K8V-DX Athlon64 S-ATA G-LAN——$185
Asus A7V8X WL / 394 IEEE USB2.0——$96
Asus A7N8X / A7N8X VM——$117 / $

Monitor

Samsung763DF 17in Flat CRT——$189.99
BENQ 16in LCD——$429
Sony SDM-S53H 15 in LCD——$469
Sony SDM-S73H 17 in LCD——$599

Printer & Scanner

Samsung 1750 Laser Printer——$278
Lexmark Z705 Photo Color Printer + 2Mega Pixel Digital Camera——$108.88

CPU / RAM / Flash

Intel Celeron 2.4G / 2.5G / 2.7G / 2.8G
Intel P4 (800FSB) 2.4G / 2.8G / 3.0G / 3.2G
AMD XP (Barton) 2500 / 2600 / 2800 / 3000
AMD Athlon64 FX (754) 3000 / 3200 / 3400
DDR333 256MB / 512MB
DDR400 256MB / 512MB
Notebook DDR (200Pin)
Memory Card
Compact Flash(Kingston)
Memory Stick
Secure Digital
Smart Media
USB Flash Drive 128M / 256M / 512M

Hard Drive

7200rpm (2M) 40G / 80G / 120G
7200rpm (8M) 40G / 80G / 120G
S-ATA 7200rpm (8M) 80G / 120G
Notebook(4200rpm) 40G / 60G

Cameras

Canon A80 Digital Camera 4.0M Pix
Orite MC310 Web Cam build in mic
Orite VC3240 Digital Camera

Modem

USB 56K PCI Fax / Data Modem——$25

Video

Asus TV FM Card with remote (SCR)——$78
MSI FX5200TD FX5200 128M DDR
MSI TV anywhere Master TV Tuner / FM
ATI TV Wonder VE (SCR)——$68

Audio / Speakers

Creative Audigy 2 ZS Platinum
Tsunami 80W 2pcs Speaker

Keyboard & Mouse

Logitech Keyboard DX
Logitech Cordless MX Duo Combo——$88
MS Natural Keyboard + Optical mouse——$45

Optical Dirve

48x24x48 CDRW + DVD Combo——$83
52x24x52 CDRW + DVD Combo——$73
DVD Liteon / LG / Pioneer / Sony
Liteon 48x10x48 External CDRW——$80
LG 4081B / 4082N DVDRW——$125 / $150

Network

D-Link DI 614+ / 714P+——$79 / $115
D-Link DWL520+ / 650——$53 / $44
Linksys BEFW11S4 / WRT54G——$ / $108
D-Link Router DI604 / 704UP——$ 50 / $75
RJ45 Crimping Tool / Lan Tester——$14 / $46

Controller Card

Adaptec 1200A Raid Card——$80
Sunix PCI Raid Card ATA133——$38
PCI to IEEE1394 / USB2.0——$19
PCI to Parallel port——$19
Cardbus to USB2.0 for laptop——$33

Case / Power / Others

350W Tower with Front USB——$29
Tsunami 450W Power with 2 fan——$48
ATA133 Mobile Rack——$14
USB Cable 6 / 10 / 15——$8/$7/$10
Ink Cartridge Refill——$4
CPU Cooling Fan From——$10
Case Extra Cooling Fan(80mm)——$5

Software developers hustle to adapt to change

by Trevor Greene

VANCOUVER – Computer software has become both a household name and a critical business commodity, especially within the last 10 years As a result, software developers have been hustling to keep up with constant, rapid change in their professional lives Just ask the folks trying to fend off the MyDoom virus

Along with the rapid adaptation and innovation of software technologies, the methods and tools used to design and put together the latest software products have also adapted Long-gone are the days when one generation of technology would do for years on end

"Technology based solutions for the business world are becoming more and more important and critical every year," says Rex Arnold, president of The Vancouver NET User Group (vandotnet com) "Every serious business needs infrastructure that involves technology in one way or the other, not to mention just to stay competitive "

As the systems and equipment have changed, so have the tools used to create the next generation of software Two industry giants, Microsoft and Sun Microsystems, have built the leading developer tools for enterprise-style development, which have set the standards for how development is done now and in the future

To meet the needs of changing enterprise-style development, they have seen total makeovers – essentially complete rewrites – of their APIs, frameworks, platforms and languages, says Arnold

"Enterprise scale development is now imperviously object oriented, highly componentized, highly distributed, more seamlessly interoperable, loosely coupled, and all with a growing uninterrupted connectivity," he says.

Microsoft, whose research bill in enterprise scale development is well into the billions, has developed a system called NET while Sun has created J2EE Both systems are interoperable with each having subtle advantages and disadvantages, and have come into widespread industry use

To meet the gap between quickly evolving development systems and current skill sets, yet another new generation of developers is evolving, but they remain few on the ground and much in demand

Arnold says developers must understand not only the programming aspect but also the concepts of component based messaging, concurrency, availability, scalability, resource contention, remote access, security and a thorough understanding of deployment and versioning issues

One school that has tailored a course to meet the needs of developers keeping pace with software leaps and bounds is Langara College

Langara's Solutions Developer course is designed to get people who are interested in Enterprise level development up and using the technologies and tools that are currently being used by the industry's leading software firms

The course teaches students how to build real world business applications with a focus on the real world business problems that these tools are designed to address.

The instructors teach students to build applications that are scalable, robust, provide concurrency support through synchronized access, transactional, and always available and reliable On top of this, the applications taught are easy to deploy and re-version

Students also learn how to maintain and tune the systems by testing them, adding instrumentation, performing stress-based analysis, incorporating performance counting and tracing, debugging and profiling

LANGARA COLLEGE CONTACT: Jennifer Reid, Program Co-ordinator, Computer Technology, Continuing Studies 604-323-5266 jreid@langara bc ca

Trevor Greene is a Vancouver-based writer

A MEMBER OF BFB BC Mainland

A-POWER

OPEN MON-FRI 10AM TILL 6:30PM SAT 10AM-6PM CLOSED SUNDAY & HOLIDAYS TECHNICAL SUPPORT CALL 604 273 8782 OR EMAIL POWER@A-POWER.COM

BURNABY
604.570.0766
FAX 604.298.2544
3704 EAST HASTINGS ST
BURNABY BC V5C 2H5

RICHMOND
604.273.8868
FAX 604.273.8280
#101-11211 BRIDGEPORT RD
RICHMOND BC V6X 1T3

A-POWER SYSTEMS

OUR AP SERIES PRE-CONFIGURED SYSTEMS ARE PROFESSIONALLY DESIGNED AND CONSTRUCTED FOR HOME OR WORK

HARDWARE SWAPPING WARRANTY FOR YOUR AP SYSTEM AVAILABLE WITH AP EXPRESS / EXTENDED WARRANTY. PLEASE CONSULT WITH YOUR REPRESENTATIVE. MICROSOFT WINDOWS OPERATING SYSTEM AVAILABLE AT EVERYDAY LOW PRICES

AP04-SOHO SYSTEM
$345.00 DD

AMD® ATHLON™ XP 3000+
256MB (INSIGNIA) PC3200 DDR RAM
ASROCK (ASUS) K7S41GX W/UDMA 133
MAXTOR OR SEAGATE 40GB 7200RPM HD
LG 52X IDE INT CDROM DRIVE
1.44 SAMSUNG FLOPPY DRIVE
INTEGRATED 4X AGP VIDEO
INTEGRATED AC97 SOUND
INTEGRATED 10/100 NIC
WINDOWS XP HOME PS2 KEYBOARD
WINDOWS PS2 MOUSE W/WHEEL
2 SATELLITE MULTIMEDIA SPEAKERS
17" (769 PL) ATX CASE W/P4 PS

AP04-CELERON SYSTEM
$365.00 DD

INTEL® CELERON™ 2.4GHz 400MHz FSB
256MB (INFINEON) PC3200 DDR RAM
ASROCK (ASUS) GF PRO N2 W/533 SSD
MAXTOR OR SEAGATE 40GB 7200RPM HD
LG 52X IDE INT CDROM DRIVE
1.44 SAMSUNG SLOPPY DRIVE
INTEGRATED 4X AGP VIDEO
INTEGRATED AC97 SOUND
INTEGRATED 10/100 NIC
WINDOWS XP HOME PS2 KEYBOARD
WINDOWS PS2 MOUSE W/WHEEL
2 SATELLITE MULTIMEDIA SPEAKERS
17" (769 PL) ATX CASE W/P4 PS

AP04-XP SYSTEM
$519.00

AMD® BARTON 2500+ 512K
512MB (SAMSUNG) PC3200 DDR RAM
ASUS A7V8X MX W/UDMA 133 USB 2.0
SEAGATE 80GB 7200RPM HD
LG 52X32X52 CDRW W/SOFTWARE
1.44 SAMSUNG SLOPPY DRIVE
INTEGRATED 3D GRAPHICS
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 NIC
WINDOWS XP HOME PS2 KEYBOARD
MM3003 OPTICAL MOUSE W/WHEEL
2 SATELLITE SPEAKERS W/SUBWOOFER
17" (769 PL) ATX CASE W/P4 PS

AP04-P80 SYSTEM
$649.00 DD

INTEL® P4™ 2.8GHz 800MHz FSB
512MB (SAMSUNG) PC3200 DDR RAM
ELSA GF1SX M W/800FSB UDMA 133 USB 2.0
SEAGATE 80GB 7200RPM HD
LG 52X32X52 CDRW W/SOFTWARE
1.44 SAMSUNG SLOPPY DRIVE
INTEGRATED 3D GRAPHICS
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 NIC
WINDOWS XP HOME PS2 KEYBOARD
MM3003 OPTICAL MOUSE W/WHEEL
2 SATELLITE SPEAKERS W/SUBWOOFER
18" (457K) ATX CASE W/P4 PS

AP04-ULTRA SYSTEM
$739.00 DD

INTEL® P4™ 2.8E PRESCOTT W/1MB
512MB (SAMSUNG) PC3200 DDR RAM
ASUS P4800 VM W/USB 2.0
SEAGATE 120GB 8MB 7200RPM HD
SONY 52X32X52 CDRW W/SOFTWARE
1.44 SAMSUNG FLOPPY DRIVE
INTEGRATED RADEON 8500 3D GRAPHICS
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 NIC
WINDOWS XP HOME PS2 KEYBOARD
MM3003 OPTICAL MOUSE W/WHEEL
3 SATELLITE SPEAKERS W/SUBWOOFER
18" (457K) ATX CASE W/P4 PS

AP04-3D GENDER SYSTEM
$939.00 DD

INTEL® P4™ 3E PRESCOTT W/1MB
512MB (SAMSUNG) PC3200 DDR RAM
ASUS P4S800S W/SATA USB 2.0
SEAGATE 120GB SATA 8MB HD
SONY 52X32X52 CDRW W/SOFTWARE
1.44 SAMSUNG FLOPPY DRIVE
MSI MS-8911 GFX 5200 128MB AGP8X
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 LAN
MS MULTIMEDIA KEYBOARD
MS OPTICAL MOUSE W/WHEEL
CREATIVE S35 33D 2.1 SPK W/SUB
18" (458K) ATX CASE W/P4 POWER

AP04-GAMER64 SYSTEM
$1239.00 DD

AMD® ATHLON64 3000+ 512K
1GB (512MBX2) KINGSTON PC3200 DDR
ASUS K7V W/SATA RAID GB LAN
SEAGATE 120GB SATA 8MB HD
LITSON LDW 451P 4.7P DVD±RW
1.44 SAMSUNG FLOPPY DRIVE
ATI RADEON 9600SE 128MB AGP8X
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED GIGABIT LAN
MS MULTIMEDIA KEYBOARD
MS OPTICAL MOUSE W/WHEEL
CREATIVE S35 450.4.1 SPK W/SUB
18" (458UL) ATX CASE W/P4 POWER

AP04-DESIGN SYSTEM
$1,479.00 DD

INTEL® P4™ 3.2E PRESLOTT W/1MB
1GB (512MBX2) KINGSTON PC3200 DDR
ASUS P4P800 DELUXE W/SATA IEEE1394
SEAGATE 120GB SATA 8MB HD
LG GSA4082 8X8 DVD±RW
1.44 SAMSUNG FLOPPY DRIVE
ATI RADEON 9800SE 128MB AGP8X
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED GIGABIT LAN
MS MULTIMEDIA KEYBOARD
MS OPTICAL MOUSE W/WHEEL
CREATIVE S35 450.4.1 SPK W/SUB
18" (458UL) ATX CASE W/P4 POWER

MONTHLY SPECIALS

BUYING A GIFT FOR HIM/HER? CHECK OUT OUR UNBEATABLE PRICES & QUALITY MONTHLY SPECIAL PRODUCTS!

VISIT HTTP://WWW.A-POWER.COM/ FOR MORE DAILY SPECIALS

$75
SANDISK
CRUZER MINI 256MB
USB 2.0 FLASH DRIVE
MOBILE STORAGE
256/512/1G AVAILABLE

$1289
SONY CYBERSHOT DSC-S85
8.0 MEGAPIXEL 7X ZOOM
BUILT FOR SPECIAL CLASS
OF PHOTOGRAPHER

$139
LG GSA-4082B
8X8 DVD±RW BULK PACK
PACKAGE INCLUDES APE ALL
NECESSARY SOFTWARE

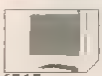
$25
THS SUNC SURFACE T830
COMPETITION HOUSING SURFACE
PAD WITH IT'S SMOOTH SURFACE
AND HIGH TRACTION

$147
LOGITECH QUICKCAM ORBIT
1.3 MEGAPIXEL 1280X1024
AUTOMATIC FACE-TRACKING
AUTOMATIC DIGITAL ZOOM
2 YEAR WARRANTY

COMPONENTS

A POWER IS AN AUTHORIZED RESELLER FOR THOUSANDS OF PRODUCTS AND BRANDS. IS YOU CAN'T FIND IT HERE, CHECK OUT OUR WEBSITE!

$139
MAINBOARDS
INTEL 865PERLX
865GBF DUAL CHANNEL
DDR W/SATA RAID USB 2.0
3 YEAR WARRANTY



$515
MONITORS
BenQ 17" FP767 LCD
1280x1024 2ms
500:1 BLACK/SILVER
3 YEAR WARRANTY

$43
ROM DRIVES
SONY 52x32x52x CDRW
BURN PROOF TECHNOLOGY
W/SOFTWARE

$77
COMMUNICATIONS
LINKSYS (WEFW11S4)
4 PORT ETHERNET
SWITCH & WIRELESS
ACCESS POINT

$132
IDE HARD DRIVES
SEAGATE 120PB PATA
(ST3120026AS) ATA 150
7200RPM 8MB CACHE

$299
VIDEO CARDS
SAPPHIRE RADEON
9600 PRO 128MB DDR
W/TV & DVI
AGP8X RETAIL BOX

$57
MULTIMEDIA
CREATIVE INSPIRE
S35-450.4.1 8 WATT
SUB SOUND SPK
W/20 WATT SUB

$269
PRINT & SCAN
HP LaserJet 1012
6000PI 15PPM
8MB LASER PRINTER

3704 East Hastings St
Burnaby, BC V5C 2H5

#101-11211 Bridgeport Rd
Richmond, BC V6X 1T3

www.a-power.com

FOR THE LATEST PRICES ON SYSTEMS, COMPONENTS AND NOTEBOOKS, CHECK OUT OUR ONLINE WEBSITE OR EMAIL US AT POWER@POWER.COM

Copyright © 2004 Registered trademark of A POWER COMPUTER LTD. All Rights Reserved. All product names & trademarks are properties of their respective owners. Product images are not exactly as shown. All prices are in CAD dollars and reflect a 3% pre-cash discounted price. All prices are subject to change without notice or obligation. Shipping and applicable taxes are not included. In-store stock may vary. Financing may be offered by the manufacturer and/or third-party vendors. Leasing available on systems $1000+. Interest rates are set by the leasing agent. A-Power assumes no liability or responsibility for any errors or omissions on the layout.

Sold with system only
*Price reflect on after-mail-in rebate

Your guide to buying a notebook computer

By Geof Wheelwright

A notebook computer may be the most useful purchase that you, as a computing enthusiast or professional, can possibly make. It can also be a dreadful and expensive mistake

It works like this Modern notebook computers are now as powerful as almost any desktop computer you care to name You can get them with the same processing power, computer graphics, sound capabilities, quality of display and even goodies such as DVD-ROM drives, built-in cameras for video conferencing and huge hard disks Typically, however, you pay anywhere from an extra 33 to 100 per cent for a notebook when compared to a similarly-specified desktop computer

So, from the outset, your decision about whether or not you need a notebook computer should be based on what you are planning to use it for – and how much you have to spend As long as you accept that you WILL be paying a premium for portability, then you are ready to deal with this issue in a realistic fashion

OESKTOP VERSUS NOTEBOOK?

Your decision will also be based on whether you already have a desktop computer or not. If you plan to use the notebook as your "second computer", you are likely to be thinking about this choice in a very different fashion that if

SonexPC.com Call 604-717-6111 OR SHOP ONLINE AT : www.sonexpc.com

OUR KNOWLEDGEABLE STAFF CAN OFFER EXPERT ADVICE!

Starter Desktop — SonexPC C240B
Intel Celeron Processor at 2.40Ghz
256MB Shared DDR memory
32MB Max Shared 3D Video
10/100 Lan / Stereo Audio
30GB Hard Drive (7200RPM)
52X CD ROM Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 30GB to 40GB HD — Price start @ $359
Suggest Add-on Options: 17" Flat CRT (19" Vis) Add $139; Upgrade to 52X CD RW Drive Add $29; MS Windows XP Home OEM Add $139

Performance Desktop — SonexPC P280P
Intel Pentium 4 Processor at 2.80Ghz with 800MHz front side bus
256MB Shared DDR memory
32MB Max Shared 3D Video
10/100 Lan / Stereo Audio
60GB Hard Drive (7200RPM)
52X CD RW Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 60GB to 80GB HD — $589
Suggest Add-on Options: 15" LCD 1024 x 768 Add $399; Up to 512MB DDR333 Add $58; MS Windows XP Pro (OEM) Add $219

Advance Graphic Station — SonexPC P300D
Intel Pentium 4 Processor at 3.00Ghz with 800MHz front side bus
512MB Dual Channel DDR memory
Radeon9200SE 128MB with TV Out
10/100 Lan / 5.1 Audio
80GB Hard Drive (8MB/7200RPM)
8X DVD+/-RW Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 80GB to 120GB HD — $979
Suggest Add-on Options: 17" LCD 1024 x 768 Add $519; Up to 1GB DDR400 Add $119; Radeon 9600Pro 128MB Video Add $139

Small Business Server — SonexPC X2240S
2 x Intel Xeon Processor at 2.4Ghz with 533 front side bus (Dual CPU)
512MB ECC DDR SDRAM
Radeon 7000 64MB DDR AGP
Gigabit NIC / Stereo Audio
36GB SATA Hard Drive 10,000 RPM
52X CD-RW Drive
1 Year Hardware Limited Warranty
*FREE 3 Years Limited Warranty — Price start @ $1789
Suggest Add-on Options: MS 2003 Server w/ 5 CAL Add $910; Up to 1GB ECC DDR SDRAM Add $149; APC BACK UPS PRO 1000VA Add $499

StarterWebBox — SonexPC 250XPH
AMD AthlonXP2500+ Processor
256MB Shared DDR memory
64MB Max Shared 3D Video
10/100 Lan / Stereo Audio
30GB Hard Drive (7200RPM)
52X CD-ROM Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 30GB to 40GB HD — Price start @ $369
Suggest Add-on Options: 1.44MB Floppy Drive Add $15; Upgrade to CD RW/DVD Drive Add $59; 3 Year System Limited Warranty Add $32

BudgetGamer — SonexPC A280G
AMD AthlonXP2800+ Processor with 333MHz 512K Cache (BARTON)
256MB DDR333 memory
Radeon9200SE 128MB w/ TV OUT
10/100 Lan / Stereo Audio
60GB Hard Drive (7200RPM)
52X CD-RW Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 60GB to 80GB HD — $549
Suggest Add-on Options: 17" Flat CRT (18" Vis) Add $249; 16X DVD Drive Add $35; 3 Year System Limited Warranty Add $48

AdvanceGamer — SonexPC A300G
AMD AthlonXP3000+ Processor with 333MHz 512K Cache (BARTON)
512MB DDR333 memory
Radeon9600PRO 128MB w/ TV OUT
10/100 Lan / 5.1 Audio
80GB Hard Drive (8MB/7200RPM)
52X CDRW Drive
1 YearHardware Limited Warranty
*FREE Upgrade from 80GB to 120GB HD — $829
Suggest Add-on Options: Logitech Access Trio Package Add $95; 19" LCD Panel 1280x1024 Add $795; 3 Year System Limited Warranty Add $67

64 Bit 3D CAD Station — SonexPC A6300D
AMDAthlon64 XP3000+ Processor
512MB Dual Channel DDR memory
Radeon 9800Pro 128MB DDR with TV Out & DVI
10/100 Lan / 5.1 Audio
120GB Hard Drive (8MB/7200RPM)
8X DVD+/-RW Drive
1 YearHardware Limited Warranty
*FREE 3 Years Limited Warranty — Price start @ $1299
Suggest Add-on Options: Logitech MX DUO KB & Mouse Add $99; Wacom Intuos2 4x5 USB Add $269; AutoCAD LT2004 Full Add $1050

Value Notebook — Acer Aspire AS1353LC
Mobile AMD Athlon™XP M 2400+
512MB Shared DDR333 memory
UniChrome™ 2D/3D Video
10/100 Lan / Audio / IEEE1394
40GB Hard Drive
24X CDRW / 8X DVD Combo Drive
15.0" XGA TFT Display
MS XP Home Edition
1 Year Manufacture Warranty
$1349
Suggest Add-on Options: Linksys 802.11G Wireless Card +$85; MS Office XP Small Business Edition +$219; Norton AntiVirus 2004 (OEM) +$49

Performance Notebook — Acer Aspire AS2003LMI
Intel Pentium®Mobile 1.60GHz
512MB DDR333 memory
ATI MobilityRADEON 9200 64MB
Wireless Lan / 2.1 Audio / IEEE1394
60GB Hard Drive
4X DVD-RW Drive
15.4" WXGA 16:10 TFT Display
MS XP Professional Edition
1 Year Manufacture Warranty
$2289
Suggest Add-on Options: 256MB USB Flash Drive +$89; MS Office XP Professional Edition +$389; Norton Internet Security 2004 +$65

xCubePC Gamer Edition — Sonex CubePC 2500G
AMD AthlonXP2500+ Processor
512MB DDR333 memory
nVIDIA FX5200 128MB Video
10/100 Lan / 6 Channel Audio
120GB Hard Drive (7200RPM)
52X CDRW / 16X DVD Combo Drive
IEEE1394 / TVOUT / 4xUSB 2.0
Size 300mm x 185mm x 200mm
1 YearHardware Limited Warranty
Price start @ $799
Suggest Add-on Options: TV Tuner Card with Remote Control +$79; Logitech Wireless Keyboard & Mouse +$59; 802.11B Wireless PCI Lan Card +$45
** FREE 50 CD-R Disk

xCubePC DVD Creator — Sonex CubePC 2800D
Intel Pentium 4 Processor at 2.80Ghz
512MB Shared DDR memory
64MB Max Shared 3D Video
10/100 Lan / 6 Channel Audio
120GB Hard Drive (7200RPM)
8X DVD+/-RW Drive
IEEE1394 / TVOUT / 4xUSB 2.0
Size 300mm x 185mm x 200mm
1 YearHardware Limited Warranty
Price start @ $939
Suggest Add-on Options: Internal 7 in 1 Media Reader +$38; Radeon 9600 128MB All In Wonder +$269; 128MB WaWa MP3 Player Drive +$125
** FREE 10 DVD-R Disk

acer Antec ASUS ASRock BenQ CREATIVE ECS ELITEGROUP Kingston Logitech intel LG Electronics LINKSYS NEC Maxtor Microsoft MSI SAMSUNG Seagate Shuttle Western Digital AMD Athlon intel inside pentium 4

SonexPC System Enhancers :

Business Laser Printer — Samsung ML-1710
$265
1200x600dpi; 8MB Memory; 17 ppm; USB / PAR

Wireless Package — Linksys WRT54G Router
$109
Linksys WMP54G PCI 802.11G $89
Linksys WPC54G Card 802.11G $89

Personal InkJet Printer — Epson C44UX Inkjet
$65
2880x720dpi 12ppm USB
Third Party C44IX Black Ink $13
Third Party C44IX Color Ink $18

Stereo Sound Enhance — SB Audigy 2 ZS Platinum
$229
24-bit ADVANCED HD audio 108dB SNR
SB Live 5.1 Sound (OEM) $39
SB Audigy ES 5.1 Sound $59
SB Audigy 2 5.1 Sound (OEM) $97

Keyboard & Mouse — Logitech MX DUO
$99
Wireless Keyboard with MX700 Mouse
Logitech Access Duo KB & MSE $79
Logitech Access Trio w/Webcam $99

Multimedia Speaker — Logitech Z2200
$165
Wireless Keyboard with MX700 Mouse
Logitech z220 2.1 Subwoofer $59
Logitech z640 5.1 Subwoofer $85

Handy Storage — Sandisk 256MB USB Drive
$89
Sandisk 512MB USB Drive $195
Sandisk 128MB USB Drive $59
7 in 1 External Media Reader USB $29
256MB Compact Flash Memory $79
256MB Secure Digital $99
(Call for other format, size & brand)

Display Panel — Samsung 171S 17" LCD
$565
450:1 Contrast Ratio; 0.264mm Pixel Pitch; 25ms Response Time
Samsung 191T Plus 19" LCD $809
Benq FP731 LCD 25ms / 450:1 $539
Acer 1714 17" LCD 14ms 350:1 $519

D.I.Y AREA :

Budget Upgrade Barebone System — P4 Celeron 2.4 / AMD XP 2200+
Intel Celeron 2.4Ghz OR AMD XP 2200+ CPU
256MB DDR333 Shared Memory
17" Sonex Case w/ Front USB
300W ATX Power Supply
SiS/ VIA Multifunction Motherboard
2.1Audio / 10/100Lan / 4xUSB 2.0
Open AGP Slot for future Video upgrade
$239
** Assembly Option Available

DIY BEST BUY ZONE

INTEL		AMD	
Intel P4 2.8C CPU	$249	AMD XP2500+ CPU	$109
Intel P4 3.2C CPU	$39[illegible]	AMD XP2[illegible]00+ CPU	$1[illegible]9
Intel Celeron 2.4 CPU	$[illegible]	AMD XP3000+ CPU	$229
Asus P4P800 MB	$145	Asus A7N8X-E Dlx MB	$159
Asus P4P800-Dux MB	$175	Asus A7V8X-X MB	$85
Asus P4C800E-Dux MB	$249	Asus A7V600-X MB	$[illegible]
ECS P4VMM2 MB	$55	AsRock K7S41GX MB	$5[illegible]

HD: Maxtor 40GB / 80GB / 120GB 7200RPM	$75/$89/$119
HD: Maxtor 120GB / 160GB 8MB Buffer 7200RPM	$139/$179
HD: Seagate 80GB / 120GB SATA 7200RPM	$107/139
HD: WD 80GB / 120GB / 120SATA 8MB	$99/$129/$145
Video: Radeon 9200SE / 9600Pro / 9800Pro 128MB	$69/$189/$309
Video: nVIDIA FX5200 / 5600XT / 5900XT 128MB	$79/$125/$259
Case: Antec Sonata Black quiet Case w/ 380W PS	$139
Case: ThermalTake Skull VM2000A / Xaser II VM3000	$142/$153
Case: Raidmax 868 17" GAMING CASE w/ 420W PS	$79
Optical: LG 52X CD-ROM / 16X DVD ROM Drive	$25/$30
Optical: LG 8X DVD+/-RW / 52X CD RW Drive	$139/$49
Optical: Pioneer 107 / Plextor 708A 8X DVD+/-RW	$165/$240
Lan: Aopen 4 Port Router / 5Port Switch	$49/$29
Lan: MSI Wireless 802.11Lan PCI / PCMCIA	$45/$45
Media: 50Pack CD-R Disk / 25pack DVD-R	$19/$29
Case Fan: Vantec 80mm Fan / 120mm Fan Quiet 21dBA	$13/$28

Check out more discount items @ http://www.sonexpc.com
Member Special Discount @ Coupon Area! Check Out Now!

Sonex Express Service Charge

Virus Remove	From $40	Hardware Install	$15
System BackUp	$40/hr	OnSite Support	$80/hr
Data Transfer	$40/hr	Web Design	$50/hr
Reinstall OS	$40/hr	System Rebuild	$50/hr

** All SonexPC come with 10/100BT LAN, Keyboard, Wheel Mouse and 18" Case w/ 300W w/Front USB
** Other system & notebook custom configurations are available at our site -> http://www.sonexpc.com
All SonexPC come with Standard 1 Year Limited System Warranty. Extended Warranty available. Free Upgrade Apply Only For Cash Payment
** All Upgrade Kit is not include assembly charge

(1) 3 YEAR LIMITED SYSTEM WARRANTY: 1 YEAR PARTS AND 3 YEARS LABOUR WARRANTY ON HARDWARE.
(2) 1 YEAR LIMITED SYSTEM WARRANTY: [illegible] PARTS AND 1 YEAR LABOUR WARRANTY ON HARDWARE.
(3) EXTEND [illegible] YEAR LIMITED WARRANTY TO 3 YEAR LIMITED SYSTEM WARRANTY ADD 10% OF THE SYSTEM PRICE.
(4) ALL LISTED PRICES REFLECT 3% CASH DISCOUNT. PRICE, QUANTITIES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. ALL SYSTEMS ARE BURNED-IN FOR 48 HOURS BEFORE SHIPPING.
(5) STOCK IS SUBJECT TO AVAILABILITY.
(6) ALL PRODUCT NAMES, TRADEMARKS AND REGISTERED TRADEMARKS ARE PROPERTIES OF THEIR RESPECTIVE OWNERS.
CASH & LOCAL PICKUP ONLY FOR COUPON SPECIAL CITY

MasterCard VISA

Leslie Road · SONEX · SUPER STORE · No 3 Road · Alexandra Road · Hazelbridge Way · Alderbridge Way · FUTURE SHOP

SONEX COMPUTER INC : UNIT 140 - 4800 NO. 3 ROAD, RICHMOND, BC V6X 3A6
FAX 604 303.1980 TECH · 604 717 6110 CORP · 604 717.6107 MON - SAT 10:00AM - 6:00PM **604-717-6111**

When things are running smooth,

You're a Hero

But when systems go down...

serenity

safe, sound, secure

Stop stressing and get managed colocaton from Serenity

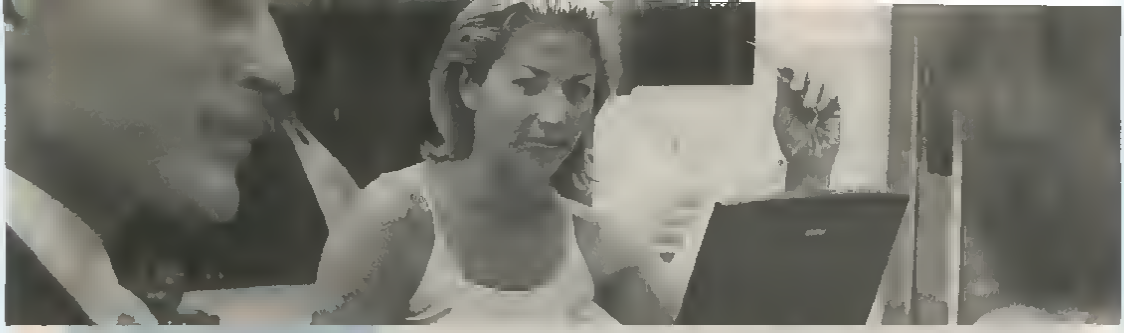
- Cost Effective Managed Colocation
- Server Support and Maintenance
- Redundant Network
- 24/7 Monitoring
- Generator Backed Power

Contact Serenity Networks for a free consultation today:

Serenity Networks
#2388–555 West Hastings Street
Vancouver, British Columbia
Canada, V6B 4N5

604.687.5336
www.serenitynet.com
info@serenitynet.com

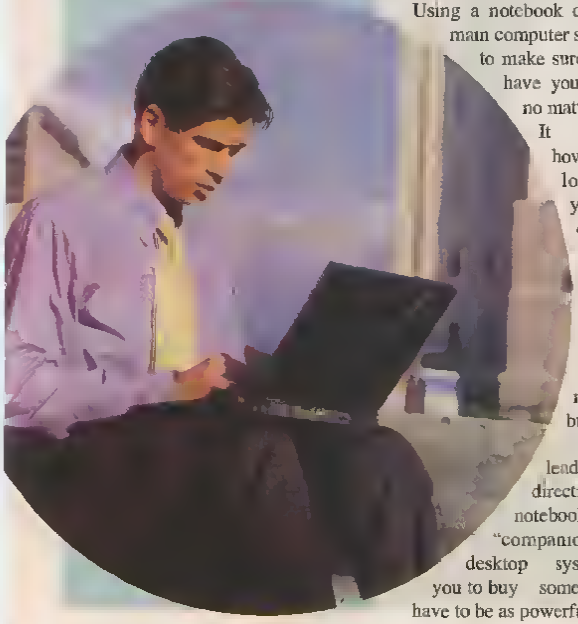
GoldTree
computer systems
Need better computer equipment?
Datacentre equipment and enclosures
Network servers and equipment
Personal Computers
Tel. 604-687-0495



So what is Centrino?

So what is Centrino – other than another designer technology name on a landscape littered with them? Intel's answer to that question is simply that Centrino represents Intel's best technology for mobile PCs. It combines the Intel Pentium M processor, the Intel 855 Chipset Family and the Intel PRO/Wireless 2100 Network Connection – which were all optimized, validated and tested to work together with mobility in mind.

Looking at processor performance, Intel says that using MobileMark 2002 (an benchmark testing a combination of battery life and performance), Intel Centrino mobile technology-based systems can deliver up to five hours of battery life or more, compared to about four hours on mobile Intel Pentium III processor-M based system and about 3 hours on mobile Intel



the notebook is to be the only computer in your home office.

We'll start with the assumption that you do not already have a computer and that you are thinking about using the notebook computer as your main system.

This immediately has several impacts. The first is that you will likely want a notebook with built-in wireless networking – otherwise you will have to be chained to a desk to be connected to your network or the Internet. You will probably want a notebook that uses Intel's Centrino wireless networking chip set. [See box copy of Intel's Centrino wireless networking technology for more on this.]

The next issue you'll face is something of a double-edged sword. Using a notebook computer as your main computer system allows you to make sure that you always have your data with you, no matter where you are. It also means, however, that if you lose or damage your notebook computer – and have not properly backed up all on the data on it – then you will potentially lose all the data you need to run your business.

All of this may lead you in the direction of using your notebook computer as a "companion" to your desktop system. This allows you to buy something that doesn't have to be as powerful as your desktop system, won't necessarily be used to hold all your data and can generally just be dedicated to those jobs that you need to take care of while you are out of the office.

The real question in selecting an appropriate portable, however, does not lie solely in whether you use it as a replacement for a desktop or as a "companion" PC. Instead, there are a whole range of technological and design issues to be considered - each of which could significantly impact on just how well the portable does the job you want it to do.

Display

While the question of display quality is often a matter of personal preference on desktop computers, it is a vital issue where portable computers are concerned. It doesn't matter how fast your system is - or how much capacity it offers - if you can't see what you are doing.

Older portables will tend to have LCD (Liquid Crystal Display) screens that are somewhat muddy and hard-to-read, while most modern notebook systems offer crisp, clear color displays using active matrix color LCDs that are often easier to read than their desktop counterparts.

Passive matrix color LCD technology is the cheapest LCD color technology available and was initially popular for use on the highest-volume color computers. It offered quite serviceable color - yet without the crisp and bright appearance you are probably used-to on desktop systems. Most systems you'll buy today, however, offer active matrix displays.

Active matrix LCD color is what every portable user is after - but until a couple of years ago, few could afford

Looking for the best hands-on education in systems, networking, and software development?

Want to find one of the most flexible programs available?

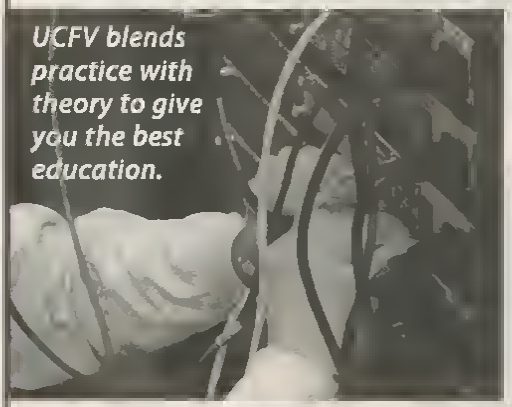
Look no further.

UCFV has got it all, and our students get jobs!

The University College of the Fraser Valley Computer Information Systems program blends practice with theory, and combines state-of-the-art learning environments with on-site co-op education options. We offer:

- Computer Security
- Software Development
- Advanced Networking
- Object-Oriented Design
- Database Administration
- Human Factors
- Web Programming
- User Interface Design
- System Administration
- Business Skills
- Team-Building
- Presentation Skills

*We also offer **Continuing Studies** courses in home networking, Linux, and CISCO CCNA and CCNP. See **www.ucfv.ca/cs** for details. Coming soon. CISCO Security course.*


UCFV blends practice with theory to give you the best education.

Call 604-854-4589

Visit www.ucfv.ca/cis

Have a lot of experience and want credit for it?

UCFV
Computer Information Systems

INFORMATION SESSION FOR PROSPECTIVE STUDENTS

Wed., April 28, 7 p.m. in Abbotsford.
See **www.ucfv.ca/cis** for details.

UCFV offers the best hands-on education in systems, networking and software development, and has highly flexible programs to suit you.

- Modern labs with multiple drives, Linux, Novell, CISCO, Oracle, Windows, and more.
- State-of-the-art advanced networking lab.
- Certificate, diploma, and four-year degree programs ladder into each other so you don't have to commit to a long course of study to gain a credential.
- Daytime and evening courses let you continue working while you study. September and January intakes mean you can start any time.

We offer credit for prior experience

- Our prior-learning assessment process and credit-transfer approvals are among the most flexible and generous available

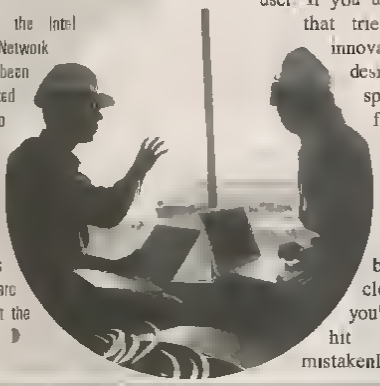
UCFV is located only 40 minutes from Vancouver in affordable Abbotsford at the centre of a huge variety of outdoor and cultural activities.

1050-06

Pentium 4 processor M based systems On the same benchmark, Intel says that Centrino mobile technology offers 41 percent faster performance on multitasking office productivity applications compared to a mobile Intel Pentium III processor M 1.2 GHz and a 15 percent improvement compared to the mobile Intel Pentium 4 processor-M 2.4 GHz system

Meanwhile the Intel 855 chipset family includes two new chipsets developed exclusively for the mobile market segment the 855PM supporting discrete graphics and 855GM with integrated Intel Extreme Graphics 2 technology

Intel says that the Intel PRO/Wireless 2100 Network Connection has been designed and validated to connect easily to 802.11b WiFi certified access points It also supports advanced wireless LAN security including 802.1x WEP and VPN technologies and will be software upgradeable to support the latest WPA technology



It most cases, it produces a display that equals or exceeds the quality of that used on desktop systems When implemented on a powerful machine, it really does go a very long way to realizing the dream of a desktop system that just happens to be contained within a laptop computer

Keyboard

Second to the screen, the keyboard is the most immediate fact of life to consider for any notebook computer user. If you use a keyboard that tries to use an innovative keyboard design to minimize space, you may find that you'll be unable to find your keys when your want them. If the keys are bunched too close together, you'll be unable to hit one without mistakenly hitting another at the same time

Similarly, if the keys on the keyboard are too small - you won't be able to accurately hit them at all. The responsiveness of the keyboard is also important If you are using your notebook computer while travelling, you may not hit the keys with the same force and intensity that you would use if you were sitting at a desk

On additional keyboard consideration is the sound of the keys when they are being used. For those who plan to use their notebook computers to actually take notes during meetings and presentations, other attendees may not take kindly tho the 'clack-clack" noise of your keyboard. Notebook systems with "silent" keyboards would be your best bet here. Trial and error is the only way to find the quietest keyboard

Battery life and type

This is probably the biggest complaint of most notebook computer users. my battery never lasts long

Continue on page 26

Visit www.performancepccanada.com to enter the contest for your chance to

WIN Xincom
XC-DPG-402 Twin Wan Router

CSP COMPUTER

COMPUTER SYSTEMS

TEL: (604) 439-9100 FAX: (604) 439-9180

3553 KINGSWAY, VANCOUVER, BC V5R 5G9

Business hours Mon Fri. 9:30- 6:30 Sat. 10.30 5.30 E-mail: cs[illegible] cspcomputer bc.ca

Our online Store is open 24 Hrs. Please visit our *Website* @ www.cspcomputer bc.ca for *Daily Special Prices*

Monthly Special
DURON 1100+ $328
ECS K7MM2 MB
256MB RAM
ATA133 40GB Maxtor H D
Integrated 128Bit 64MB AGP
52X CDROM/ 1 44MB Floppy
Realtek 10/100 Fast Ethernet Lan
Integrated 128Bit 3D Sound
Windows Keyboard / 160W Speaker
Wheel Mouse
18 300W Case w/Cooling Sys
add to 80GB +$30
add 17 monitor +$155
add to 52x CDRW +$45

XP 2 0/2 2/2.4 GHZ
$399/409/429

Office Assistant
Most Reliable & Dependable
2Yrs Parts3Yrs labor warranty
ASUS P4S533-X MB
256MB PC3200 DDRAM
ATA133 40GB Maxtor H D
INTEL 3D VIDEO CARD O/B
52X LG CD DRIVE
Intel 10/100 Fast Ethernet Lan
AOpen Keyboard / 160W Spkrs
Integrated 128Bit 3D Sound
AOpen Internet Wheel Mouse
18 300W Case w/Cooling Sys
P4 Celeron 1 6/2 0/2 2/2 4GHZ
379/399/409/429
P4 2 0/2 8/3 06 GHZ
$469/529/629

POWER STATION
ASUS A7VBX Motherboard
512 MB DDR400 RAM
80GB 7200 RPM
Maxtor/Seagate H D
GeforceFX 5200 128MB video
52x32x52 LG CDRW
16x LG DVD
AC 97 SOUND
1 44 Floppy Drive
RealTek 10/100 Fast Eth Lan
Internet Keyboard/140W Spk
Internet Wheel Mouse
18 300W Case**USB front**
XP 2 2/2 5/2 7/3 0
549/569/599/699

P4 Super Value (Hyper Threading)
Great Price & High Performance
ASUS P4P800-dX 6USB PORT
512MB DDR3200
80GB Serial ATA HD
GeForce FX5200 128MB AGP TVO
52x32X52 LG CDRW
16x LG DVD
1 44 Floppy
PCI 3D Sound / 500W Subwoofer
10/100Mbps Ethernet
Internet Keyboard / Wheel Mouse
18 300W P4 Tower Case
P4 2 0/2 66/2 8/3 0/3 2GHz
779/809/839/899/989
(15 LCD LG + $389)

Gamer Machine
Experiencing the Game World
Asus A7N8X MB
512 DDR3200 RAM
80GB SATA HD
52x LG CDRW
Geforce FX5200 128MB Video Card
5 1 3D Surround Sound Card
1 44 Panasonic Floppy
5 1 Surround Speaker w/subwoofer
18 Clear Side case with Light
Microsoft Internet Keyboard
Microsoft Optical mouse

AMD XP 2400/2500/2600/3000/3200+
769/789/859/949/1109

Dream Machine
Everything You Want in One Pkg
ASUS P4C800-DX (P5 Support)
1GB DDRPC3300 Dual Channel Ram
120 GB SATA Hard Drive
LG 8X DVD-RW/+RW
1 44 Floppy
ATI 9800XT Video card
Creative Audigy2 5 1 sound card
Logitech Z560 5 1 speaker
RaidMex Scorpio P4 case 420w
Logitech Optical Mx wireless KB/Mouse
Samsung 19 191T Digital LCD
P4 2 6c/2 8c/3 0c/3 2c
$2809/2949/3049/3099

AMD Athlon64 Station
64bit Computing Experience

Asus K8V Delux S754 MB
512 DDR PC3200 RAM
80GB SATA Seagate HD
Geforce FX 5200 128MB video
1 44 Floppy
52x LG CDRW
420 RaidMex Scorpio Case
Microsoft Internet KB
Microsoft Optical mouse
500 W subwoofer speaker
Athlon64 3200 +

$1269

AMD Dual MP Extreme
(powered by Tyan)
Dual AMD MP CPU
Tyan S2466N-4M
512MB DDR333 Samsung
128MB ATI 9000 Video card
120GB WD 8mb cache HD
52x32x52 Lite-on CDRW
1 44 Floppy
5 1 Creative live sound
Thermaltake Xaserll 5000A
365W Enermax Powe
AMD MP 2200+/2600+/2800+
1456/1599/1799
more MP & Opteron Sys check out webs te

Motherboard
ASUS A7N8X /DELUX $135/159
ASUS P4C800EDX/P4P800 $249/145
ASUS K8V DELUX $185
DELUX/SK8N $185/239
Tyan S2466NM/2468GN $325/617
Tyan S2650UGNR/GNR $539/649
GA8IK1100/GA8NKXP $179/265
MSI K7N2 DELTA ILSR $155
TYAN motherboaids check website

VIDEO CARDS
ATI 9800Pro/AIW9800128M $399/489
ATI 9800 ALL IN WONDER $289
ATI 9600XT128MB/9600XT $269/639
ASUS 9600XT/9600XT $259/669
GeForce4 64MB TVO $55
ASUS V9560/9950 $229/409
ASUS FX5950ULTRA $619
ASUS GFX5200/5700 $119 /259

LCD MONITOR DISPLAY
Samsung 153V $439
Samsung173s $559
Samsung 173T $659
Samsung 191N/191T $799/859
Sony S53/S73 $389/565
Viewsonic VG700/VG800 $589/695
ViewsonicVx800/VG900 $829/849
NEC 1590V/1700V $379/540
NEC 1760V/1650NX $619/699

CD-ROM & DVD
PIONNER108/A06 $169/179
PLEXTOR
8XDVDRW $279
SONY DWU 10A $169
SONY SWU14A $159
LG DVDRWBx $129
LG 52X CDRWExt $45/55
SONY 52X CDROM $25

HARD DRIVES & STORAGE
7200rpm
Maxtor 40/ 80/120GB $79/89/115
WD 80JB/120JB GB $105/135
WD 200GB/250GB $239/369
WD 36GB RAPTOR $177
Seagate 80/120 SATA $109/139
Notebook HD 20/30/40 $135/155/169
Floppy drive $18/19
Call for low Prices on SCSI & Tape Driv

MEMORY
32M / 64M/ 128M / 256M /512M
PC133 $22 $45 $76 $109
DDR333 - - $35 $65 $125
DDR400 - - - $85 $125
Rambus - - $89 $119 $279
72Pin EDO 16/32/ 64MB $29/35/49

MODEM & NETWORKING
Reltek 10 100BTCard $10
Surecom5/8/16 Port 10BT Hub $25/29/59
Linksys /DLink/ SMC 4P Router $65/59/47

CASES & POWER SUPPLIES
ATX 250W 15 /17 /19 $37/39/48
ATX24 Server/ATZ30W15 Case $75/34
MS / Logitech Optical Wheel Mouse $29/22
Microsoft Internet KB+Mouse Comb$39
AOpen Win96 KB + Wheel Mouse $15

CPU
P4 2G/2 8c/3 0/3 2 $169/245/329/369
Cel 1 3/1 8/2.0/2.2/2 4G $65/75/85/99/119
AMD XP 2500/2600/3000/3200 $125/165/249/389
Duron 1 3G/TB 1 3 $59/69
Opteron 140/142/144 $359/459/659

SOUND & SPEAKERS
SB Audigy 2Z /plat num $165/249
Creative live 5 1 $48
Creative S750/S700 $430/289
5.1 subwoofer speaker $55

We offer Great Services at a Flat Rate of $25 for All Computer Hardware / Software Repairs
Free Estimation!

Please check our website for your computer needs !

www.cspcomputer bc.ca

Want to list your store in our Directory Section...

Get your free listing, fax to 638.0666
or email directory@performancepccanada.com

Chapter Five – Business Model of the Month

by Geof Wheelwright

By the end of July 1999, the big question in my mind was how our company was going to make any money. At the time, there were lots of people telling me that it didn't really matter – no-one was expecting us to make a profit for a long time. In fact, our job was not to make money – but rather to raise pots of it and spend it fast and hard in a way that would convince people we were serious about making an impact on the market.

But what market? And what was the point of it all? What were we trying to achieve (other than getting ourselves rich). I started by thinking about Investment.com as a publishing enterprise – partially because publishing was my background and partially because treating Investment.com as a publication was the fastest route to bringing in some revenue (although, again, I was told that this was not something we should really be worrying about).

Mac Station

Authorized Reseller

The Accolades Keep Coming!

Hot on the heels of winning the 2003 Consumers Choice Award as Vancouver's Best Corporate Computer Reseller, we're proud to have swept the Performance PC Awards in all Mac related categories

Best Apple/Mac tech support
Best selection of Apple/Mac products
Best buy on Apple/Mac accessories
Best buy on Apple/Mac upgrade

Performance PC Award of Excellence

Thank you again Vancouver for voting us #1!

Consumers' Choice Award 2003 For Business Excellence

Vancouver's Best Corporate Computer Dealer, 2003.

Shop online: www.macstation.com

BURNABY 604-420-5224 207A 3430 Brighton Ave. | MAPLE RIDGE 604-466-6190 22353 Lougheed Highway | VANCOUVER 604-806-6237 #2 1109 Homer Street

The idea was that we could start by running the Investment.com Web site as a content-only site designed to attract readers and advertisers, get a revenue stream started through advertising – and then build on that by developing transaction-based revenue by offering users financial products and services that they could buy through the Web site.

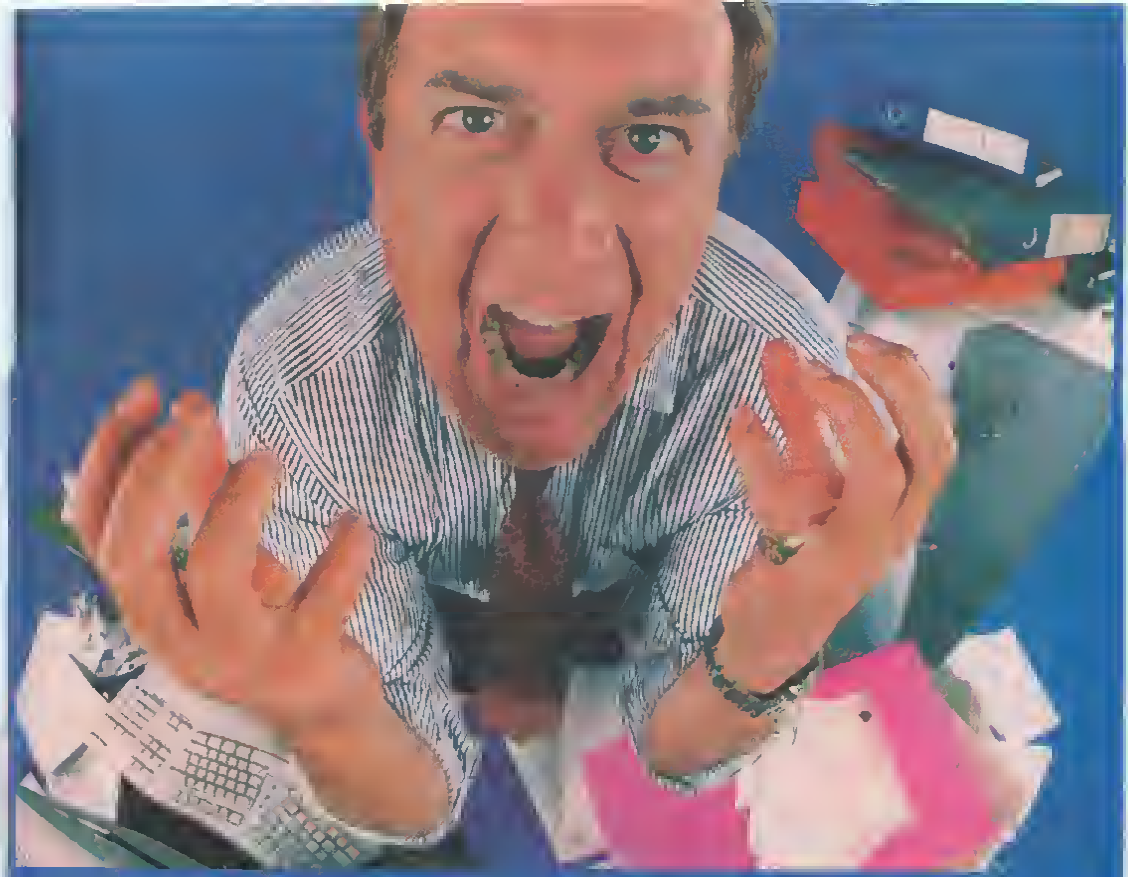
We even had a deal in place (one which predated my arrival at the company) with an organization called Citizens' Bank – which was an early Canadian "virtual" bank established in the late 1990s. The idea was that we would refer mortgage and credit card clients to Citizens Bank and get a "finder's fee" for each customer we sent to them who successfully qualified for a loan or credit card.

It was clear in the early going, however, that most of Canada's major financial institutions would have nothing to do with us. They were all busy setting up their own online offerings – and had no need of working with an upstart, dot com public company through which to funnel their financial services businesses.

So we decided we would just have to get there the old way: one customer at a time. If we could get enough people regularly visiting our Web site to read the latest financial news, check on their stocks, track their portfolios and so on, then maybe they would be attracted by the idea of having us engage them with appropriate vendors of financial services. And we figured that if we were to tell banks, brokerage houses, credit card companies and mutual fund companies that we were willing to send them customers (for a nominal fee), why would they say no?

I started the process of creating a publishing vehicle by pushing on two fronts. First of all, I really had to understand how we could substantiate our distribution model to our advertisers – explaining who was coming to our Web site and why they would want to advertise to this audience. I also needed to satisfy myself that the advertising money was even worth pursuing as everyone – even then – agreed that advertising rates based on "page impressions" (ie. how many times you're a given Web page was loaded on individual users' screens) was not likely to last long – and that advertisers would soon want to buy based on "click-through" rates (ie. how many users actually clicked on an ad and visited the advertisers' Web site) or merely paying a fee only

Continue on page 26



Back-up or Panic? Your choice

Acronis True Image 7.0
Complete disk imaging and disaster recovery solution

TOP 5 REASONS WHY YOU CAN'T AFFORD TO MISS THIS SPECIAL ACRONIS TRUE IMAGE OFFER:

- **Stay productive** Keep working in Windows while you Image your disk
- **Easy to Use:** Wizards make Acronis True Image the quickest and easiest backup solution yet for everyone
- **Image your system partition** with open Windows files
- **Restore your entire hard disk**, including preferences and upgrades, in minutes
- **Deploy the same hard disk** onto another PC quickly and easily

Acronis
Computer With Confidence

www.acronis.com

cnet Editors' Choice

"The most convenient imaging software we've seen to date..."

CNet

Neo Code Software
Wholesale Web Development
http://www.neocodesoftware.com
#288 425 Carrall St Vancouver BC, Canada V6B
Toll Free 1.888.748.0668
Tel 604 638 0668, Fax 604 638 0666

Be the Judge...

PERFORMANCE PC Award of Excellence

Spring 2004 Award Catagories

___ Best store display
___ Best store location
___ Best store / business hours
___ Best customer service
___ Best return policy
___ Best shipping policy

___ Best selection of software and games
___ Best selection of accessories and peripherals
___ Best selection of wireless products
___ Best selection of Notebooks / Laptops
___ Best selection of pre built systems
___ Best selection of brand name parts

___ Best source for latest products
___ Best price on upgrade parts

___ Best high-speed Internet Service Provider
___ Best dial-up Internet Service Provider
___ Best web hosting provider
___ Best Apple / Mac tech support
___ Best selection of Apple / Mac products
___ Best monthly special

___ Best website to browse
___ Best search engine
___ Best on-line system builder
___ Best shopping cart
___ Best order tracking system

___ Best store to shop for a gaming system
___ Best store to shop for a multi-media system
___ Best store to shop for a home office system
___ Best store to shop for a value system
___ Best store to buy CPU
___ Best store to buy Ram
___ Best store to buy motherboard
___ Best store to buy monitor
___ Best store to buy video card

___ Best store to buy computer books
___ Best store to buy point & shoot digital camera
___ Best store to buy Digital SLR Camera
___ Best store to buy Printers
___ Best store to buy Scanners
___ Best store to buy Computer Speakers
___ Best store to buy keyboard/mouse
___ Best store to buy LCD
___ Best store to buy Apple / Mac accessories
___ Best store to buy Apple / Mac upgrade

Some of the finest computer dealers are located right here in Greater Vancouver and they deserve our recognition

Come and cast your vote to support your favorite dealers, and you'll have a chance to win a Xincom XC-DPG402 Twin Wan Router

Simply fax this completed form to 604 638.0865 OR submit your vote online at www.performancepccanada.com.

1. 3 J Computers
2. A Crazy Computer
3. A D Microcircuit
4. A Link
5. Computers
6. Accurate Computers
7. Acn Computers
8. Acuse com Computer
9. Ada computers
10. Addax Computer
11. Aero Monitor
12. Aerotech Computers
13. A LINX Computer
14. Am B Pc Computers
15. A-Power Computer
16. ATIC Computer
17. ATOP Computers
18. Aztec Micro
19. BC Compusolve
20. Bestop Computers
21. Bestway Computers
22. Bits N Bytes Computers
23. Blue collar Computers
24. Book Warehouse
25. Business Pro Computers
26. Cac Computers & Comm
27. Cat's Computer
28. Canadian Computer
29. CE Computer
30. City Computer
31. Code II Computers
32. Compatible Computers
33. Compu 2000
34. Computrak Systems
35. Crystal Computer
36. CSP Computer
37. Czech Computers & Service
38. Daiwa
39. Discovery Computers
40. E Global Computers
41. Eglobal computers
42. Elitech Computers
43. Ever Tech computers
44. Evergreen Computers
45. Expie Technology
46. F X computers
47. Fly computer
48. Frontier Computer
49. G S Computers
50. Generic Commputers
51. Gess Computers
52. Golden Top Computer
53. Greg s computers
54. Half Price Computer Books
55. Hanzon Computers
56. ICI Computer
57. Infomicro Technology
58. Intertech DA
59. Jascom Computers
60. JRS Computers
61. Labtop Computers
62. Lan computers
63. LCF Advanced Technology
64. Legend computers
65. Luxor Computers
66. Main Computer
67. MBS Computers
68. MDI Internet
69. Metapher Computers
70. Micro Concept
71. Monitor King
72. Mytech computers
73. NCIX
74. NetLink
75. New Type Computers
76. NextGen Computers
77. Nu Age Computers
78. PC Computers
79. Phase I Systems
80. Powersonic Computers
81. Prime Time Computers
82. Promar
83. Rock Computers
84. SafeOnComputer
85. SLACO Computer
86. Sonix Computer
87. Stream Computers
88. T L D Computers
89. Tir Tech Computrns systems
90. Take-A Byte Computers
91. Techquest Computers
92. Tiger Direct
93. Toptech Computer
94. Tri Tech Computers
95. Ume Plus computers
96. Unique Personnl Computers
97. United Computers
98. Venco Computers
99. Varsity Computers
100. Vastech Computer
101. W S computers
102. Walnut Grove computers
103. Warpdrive Computers
104. Weblog Computer
105. Westwood Computers
106. Westworld Computers
107. Worldwide Computers
108. Simply Computing
109. Mac Station
110. Discount Mac Club

Name _____

Address _____

City _____

Province _____

Postal Code _____

Email _____

* winner will be notified by e-mail

Win a Xincom XC-DPG402 Twin Wan Router

Visit www.performancepccanada.com to enter the contest for your chance to win

ELITECH COMPUTERS

安泰电脑
コンピューター

Tel: 604 433 3210
Fax: 604 433 1398

Business Hours
Mon. - Sat 10:00 - 10:30

#1693 - 4500 Kingsway, Burnaby, B.C., Canada

Workstation (Intel)

2.4GHz Intel Celeron S-478 CPU
Slim Mini Tower Case w/PS & USB(918)
ASROCK P4S61 ALL IN ONE MOBO
256MB DDR RAM PC-2700
3.5" 1.44MB FLOPPY DISK DRIVE
UPTO 32MB(share) AGP onboard
40GB 7200rpm HARD DISK DRIVE
52X CD ROM DRIVE IDE
Integrated 3D Audio
Integrated 10/100 Network Interface
USB 2.0 Support

$399

AOC 17" 7F Pure Flat Monitor + $149
Upgrade to 52x32x52x CD-RW +$25

PVR PC

ATI TV Wonder Pro TV Tuner & Capture PCI
ASUS P4R800-VM ATI Radeon 9100IGP
Hyper-Threading 800FSB Motherboard
DVD & CD-RW COMBO DRIVE IDE
ATI RADEON 9200 Based GPU Integrated W/TVO
6 in 1 Memory Card Reader USB2.0 internal
Intel P4 2.8B GHz CPU
512MB DDR400 RAM
80GB 7200RPM ATA 100 HDD
Slim mini ATX Tower Case W/P4 P/S &USB
Integrated 6 ch. Surround Audio &
USB 2.0 & 10/100 Network Interface

$799

AOC 17" 7F Pure Flat Monitor + $149
Remote Control for TV Tuner Card + $49

P4 Power

Intel P4 2.8GHz 800FSB /512k cache CPU
Gigabyte GA-81PE1000P3 I865PE/ 800FSB
512MB PC-3200 DDR DUAL Channel
3.5" 1.44MB FLOPPY DISK DRIVE
Geforce FX5200 128MB DDR TVO AGP
80GB 7200RPM HDD
17" ATX Tower Case W/P4 300W P/S &USB
6 ch. surround Audio
USB 2.0 & 10/100 Network Interface
52x32x52x CD-RW DRIVE IDE

$799

Add 16X DVD DRIVE +$35
AOC 17" 7F Pure Flat Monitor + $149

System Upgrade (For AMD system)

ASROCK K7S8X E SIS748 400FSB MOTHERBOARD
17" ATX Case W/300W P4 Power supply
256MB DDR RAM & 2nd CASE FAN
INTEGRATED AC 97 3D AUDIO/10/100 LAN/USB2.0
AMD Athlon XP2000+ W CPU Cooler **$249**
AMD Athlon XP2500+ W CPU Cooler **$279**
AMD Athlon XP2800+ W CPU Cooler **$329**

System Upgrade (For Intel system)

ASUS P4SP MX All-in-one P4 Motherboard
17" ATX CASE W/300W P4 POWER SUPPLY
256MB DDR RAM & 2nd CASE FAN
INTEGRATED AC 97 3D Audio/Video/Lan/USB2.0
INTEL P4 Celeron 2.4GHz S478 CPU W/COOLER **$289**
INTEL P4 3.0GHz w/512k cache S478 CPU W/COOLER **$349**
INTEL P4 2.8B Ghz w/512k cache S478 CPU W/COOLER **$409**

P4 Ultimate Power

Intel P4 3.0GHz 800FSB /512k cache CPU
Gigabyte GA-81875 I875P / 800FSB
1024MB PC-3200 DDR-400
3.5" 1.44MB FLOPPY DISK DRIVE
Radeon 9600 PRO 128MB DDR AGP(Sapphire)
128GB 7200rpm SATA HDD
17" ATX TOWER CASE W/P4 300W P/S
LG 8X4X DVD +/- RW Drive IDE
Integrated Gigabite LAN & IEEE 1394 & USB
Integrated 6 Channel surround Audio

$1299

Add 16X DVD DRIVE +$35
AOC 17" 7F Pure Flat Monitor + $149

Workstation (AMD)

AMD Athlon XP1800+
Slim Mini Tower Case W/PS & USB(918)
ECS L7VMM3 300 ALL IN ONE MOBO
256MB DDR RAM PC 2700
3.5" 1.44MB FLOPPY DISK DRIVE
UPTO 32MB(share) AGP onboard
40GB 7200rpm HARD DISK DRIVE
52X CD-ROM DRIVE IDE
Integrated 3D Audio
Integrated 10/100 Network Interface
USB 2.0 Support

$379

AOC 17" 7F Pure Flat Monitor + $149
Upgrade to 52x32x52x CD-RW +$25

Athlon Power

AMD XP2500+ Barton 512K/333FSB (BOX)
Gigabyte GA7VT600PL VIA KT600/400FSB
512MB DDR RAM PC 3200
3.5" 1.44MB FLOPPY DISK DRIVE
Geforce 4 Fx5200 128MB 8xAGP
80GB 7200rpm HARD DRIVE
QUALITY 17" ATX CASE W/300W P/S(42K)
52X32X52X CD RW DRIVE IDE
INTEGRATED 6 channel AUDIO
10/100 PCI NETWORK INTERFACE
USB 2.0 Integrated

$599

AOC 17" 7F Pure Flat Monitor + $149
Add 16X DVD DRIVE +$35

Athlon Ultimate Power

AMD Althon-64 3000+ CPU(BOX)
Gigabyte K8VT800P S754/VIA K8T800
1024MB DDR400 RAM PC 3200
3.5" 1.44MB FLOPPY DISK DRIVE
120GB ATA133 7200RPM HARD DRIVE
RADEON 9600 128MB DDR W/TVO (SH)
Quality 17" ATX CASE W 300W P/S & USB(42K)
52x32x52x CD-RW Drive IDE Internal
Integrated 6 ch. Audio & Gigabyte LAN
Integrated USB2.0 & IEEE 1394

$1099

Add 16X DVD DRIVE +$35
AOC 17" 7F Pure Flat Monitor + $149

FREE 107 keys Keyboard, Wheel Mouse & 180W Power Speaker when purchase any package systems on your right. (Tower & Peripherals are not including)

www.elitechcomputers.com

Motherboard

ECS L7VMM3 PRO W/Athlon 3100A+1.8G/all-in-one	$125
ECS KT400-A VIA KT400 400FSB	$79
Asus A7N8X-X nForce2 400 333 SB Socket A	$99
Asus A7V8X-X KT400 333FSB Socket A	$85
Asus K8V VIA K8T800 Socket 754	$175
Asus P4C800-E DX I875P/S-478	$255
Asus P4P8X-SE I865P/800FSB/S-478	$109
Asus P4P800 I865PE/800FSB/S-478	$138
Asus P4R800-VM I865G S 478	$115
Gigabyte Ga 8IPE1000P3/I865PE/S 478	$139
Gigabyte Ga 8IK1100 /875P/S-478	$168
Gigabyte Ga-K8NP /nFORCE3-150 /S-754	$149
Gigabyte Ga 7VT600PL /KT600/socket A	$83
Gigabyte Ga-7N400L /nForce2/socket A	$85
Gigabyte Ga K8VT800P VIA K8T800/socket A	$145
Aopen AX45F-4D SIS 655FX/S-478	$89
Aopen MX46-800N SIS 661FX/S-478 All in One	$95
ASROCK K7S8X E SIS748 400FSB	$75

Memory Card

SMART MEDIA Flash Card 64/128	$39/75
Compact Flash 128/256/512MB	$55/89/149
MultiMedia Card 32/64/128MB	$35/45/79
Secure Digital 64/128/256/512MB	$45/69/95/238
XD Picture Card 256MB	$155
Memory Stick 128/256 MB	$75/149
Sony Memory Stick DUO 64MB	$139

Hard /Floppy Drive

Maxtor SATA 80/120 7200rpm	$105/$139
Maxtor/Seagate 40/80GB 7200RPM	$75/$95
Maxtor/Seagate 120/160GB 7200RPM	$119/call
WD 80/120GB (8MB Buffer)	$105/$129
WD 200/250GB (8MB Buffer)	$219/$315
Notebook HDD 20/40/60/80GB	$129/$169/$229/$279
Notebook HDD 5400rpm 40/60GB	$189/$269
USB2.0 Flash Drive 128/256/512MB	$39/$89/$189
4 IN 1 Multi Memory Card Reader	$35

Video Card

Gainward GF4 MX4000 64mb DDR TVO 8xAGP	$69
ATI Radeon 9600XT 128mb AGP (Sapphire Retail)	$215
ATI Radeon 9800XT 256mb AGP (Retail)	$628
ATI AIW 9800Pro 128mb (Retail)	$465
Radeon 9200SE 128MB oem (Sapphire)	$70
Radeon 9600SE /9600 128MB (Sapphire)	$118/149
ATI Radeon 9800Pro 128MB(box)	$319
ATI Radeon 9800XT 256MB(Retail box)	$628
Gainward Geforce Fx5200DT TVO/DVI 128MB	$89
Gainward Geforce Fx5600XT 128 /Fx5600XTX 256mb	$135/169
Gainward Geforce Fx5700DT 128MB /Fx5700ultra 128mb	$190/259
Gainward GF Fx5900XT /FX5950 GoldenSample 256mb	$279/619
TV Tuner & Capture Card PCI Slot/USB Ext	$59/$119

System Of the Month

Intel Pentium4 2.88 GHz CPU
ASUS P4SP-MX SIS 651GL
All-in-one Motherboard
512MB DDR400 RAM
3.5" 1.44MB Floppy Disk Drive
Video Graphic Display Integrated
40GB 7200RPM ATA100 HDD
17" ATX Tower Case W/P4 300W P/S &USB
Integrated 6 ch. Surround Audio &
USB 2.0 & 10/100 Network Interface
52x CD-ROM Drive IDE
FREE Power Speaker
FREE Keyboard & wheel Mouse

$599

Camera, Camcorder, Plasma

Logitech QuickCam Refresh USB	$39
Logitech Quickcam WEB	$49
BenQ Dc2300 4x Digital Zoom	$149
BenQ Dc2410 3.1M Pixel CCD	$199
BenQ Dc5330 3.2M Pixel 4x	$329
Canon A300/A60/A70	$269/$309/$419
Canon S400 4.0 megapixel	$599
Canon S50 5.0 megapixel	$699
Canon G5 5.0megapixel	$919
Canon ZR60/ZR70 miniDV	$585/$755
Canon Elura 50 miniDV	$849
Canon Optura 10/20 miniDV	$779/$865
Canon EOS REBEL Kit	$1399
Casio EXS3 3 megapixel	$460
Casio QVR-4 4 megapixel	$300
Samsung DM201/240/360	$158/$199/$319
Samsung Dm420/DM-V4 4.1megapixel	$389/$479
Samsung SCD71/SCD87 MiniDV	$589/$859
Samsung 50" PPM50H2 Plasma Screen	$8429
Samsung 42" PPM42S3 Plasma Screen	$4499
BenQ 46"W1 46" Plasma Screen	$4699
BenQ 4300U 48bit 600x1200dpi Scanner	$65
BenQ 5000U 48bit 1200x2400dpi Scanner	$85
BenQ 5300U 48bit 1200x2400dpi Scanner	$95

Monitor -CRT (Pure Flat)

AOC FT700 17" 1280X1024/.25mm	$149
AOC 9KLR 19" 1600X1200	$239
Samsung 755DF 17" 1280x1024	$179

Monitor -LCD

ACER AL1511BM 15" after $20 rebate	$425
ACER AL1711BM 17" after $20 rebate	$535
SONY SDM S73H 15" LCD	$639
SONY SDM S93 19" LCD	$899
VIEWSONIC VG700 / VG900	$649/859
NEC 71V 17" LCD	$575
NEC 1860NX 18" 1960NX LCD	$699/899
Samsung 151P 15" LCD	$429
Samsung 173S/193S LCD	$559/799
Philips 150S4FG 15 Inch LCD	$429
LG 7871F 17 inch LCD PANEL	$539
LG 1515S 15 Inch LCD PANEL	$419

CD/ CD-RW / DVD/ DVD±RW

LG 52X CD-ROM	$25
Samsung /LG Lite-On 16x DVD	$39
LG/Lite On 52x32x52x CD-RW	$45
Plextor PX 708A 8x CD DVD -R/RW	$225
NEC ND2500A 4x DVD R/RW IDE	$125
LG 4081b 8X DVD+/-RW Drive IDE Int	$125
LG 4082b 8X DVD+/-RW IDE Int (black)	$148
Pioneer 107(OEM) 8x DVD+/-R	$153
Lite-On 811S 8X DVD+ R/RW	$128

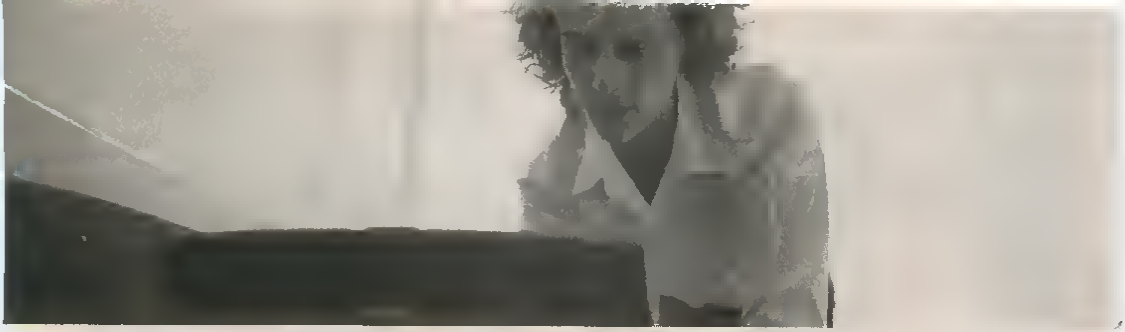
Multimedia & Converter

Creative SB 128 PCI	$29
Creative SB LIVE 2 VALUE 5.1	$49
Creative SB Audigy2 with 1394 firewire	$99
USB to Infra Red Converter	$39
USB to Bluetooth Converter	$49
3 ports Firewire IEEE1394 controller card	$39
PCMCIA IEEE 1394 FIREWIRE Adapter k	$69
USB 2.0 4 ports PCI Adapter	$39
Ultra 133 2channels RAID controller card	$49

Networking & Modem

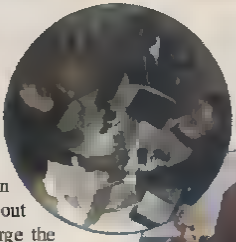
PCI 10/100 Network Interface Card	$15
AOPEN 10/100 PCI NIC	$20
4 Ports 10/100 Switch	$29
Card Bus 10/100 PCMCIA Net Card	$39
10/100Mbps 8 / 16 Ports switch/hub	$45/$79
USB wireless LAN	$49
PCMCIA wireless LAN	$49
PCMCIA 56K V.90 FAX MODEM	$69
USB2.0 4 Ports HUB w/power supply	$29
SMC 4Ports Cable/DSL Router	$55
SMC wireless 4Ports Cable/DSL Router	$79
Aopen 56K V.90 Fax D.V. PCI	$29

For Advertising in PerformancePC Call 604 - 636 - 0668



Your guide to buying a notebook computer

Continued from page 20



enough Just as your plane takes off for a 12-hour trip halfway round the world, you flip open your laptop computer only to learn that the battery has just about run out of juice. With no way to recharge the machine while en route, you thrust it under the seat and madly begin scribbling the notes that you should have been typing (unless you are on one of the planes that a number of airlines have started refitting with power plugs for notebook computers).

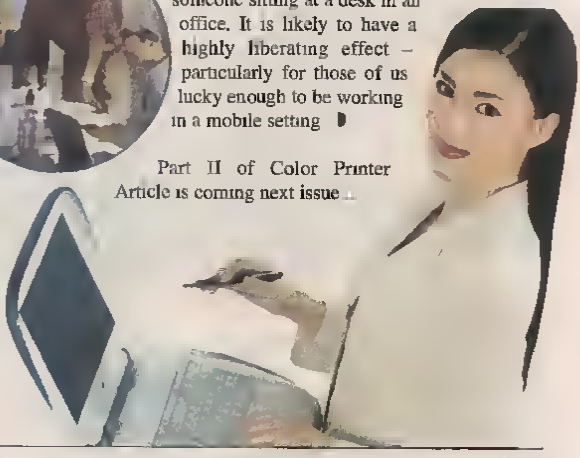
If this sounds familiar, you are one of the thousands of portable computer users glad to see the current trend toward removable, rechargable battery designs that allow you to easily carry charged-up spare batteries. Dell's Axim line of Pocket PC-based handheld systems, for example, are a good example of this breed of handheld

The future

While we will no doubt see more portables bundled with new goodies (such as DVD –R drives, which allow you to create your own DVDs), systems with longer battery life (and more flexible ways to replace batteries) and improvements in screen and keyboard technology, all these trends are more than the sum of their parts

They pave the way to a future where anyone can do any kind of computing anywhere at anytime and still be as useful (and often more useful) than someone sitting at a desk in an office. It is likely to have a highly liberating effect – particularly for those of us lucky enough to be working in a mobile setting ◗

Part II of Color Printer Article is coming next issue



Business Model of the Month

Continued from page 22

when and if a consumer actually bought something from the advertisers' Web site

This was made somewhat easier by the fact that our development partner in the Investment com Web site – Stockhouse com – was enjoying a huge surge in Web site traffic and growth for its Web site (devoted to coverage of public companies in the US, Canada, the Far East and Europe) I was able to tap into the experience on staff at Stockhouse com to get some sense of what we could expect

The early indications were that we were not going to make much money from advertising – and that it was really not worth setting up a dedicated ad sales team for it. So instead I shifted my attention to the prospect of getting a deal with a well-known Web site ad sales agency in New York known as DoubleClick This company was already selling some of the space on Stockhouse and so it was a relatively straightforward task to begin discussions with them about representing us.

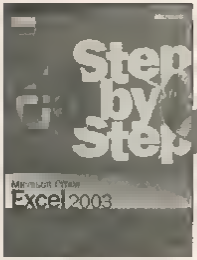
The big challenge, however, was that we didn't have a live Web site – and DoubleClick was leery about taking a chance on putting sales resources to selling an unknown product. I spent considerable time going through our plans for Investment com with various reps from DoubleClick and came up with a deal that I thought we could live with.

That, in many ways, was the easy part A much harder task was putting together a Web site that could like up to the hype that we were planning to unleash around it. To do that, I knew I was going to need a good editorial team – one that was young, enthusiastic and capable of producing bright, provocative copy to tight deadlines for a Web site that would change daily. And they would have to do it in the face of heavy, heavy competition from all corners

NEXT CHAPTER: Building the team ◗

Publisher's Pick

TOP TEN BOOK LIST

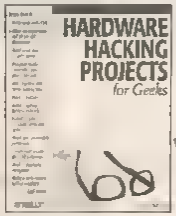


1

ISBN 0735615187
Title Excel 2003 Step By Step
Author Curtis Frye
Publisher Microsoft Press

2

ISBN 0782143184
Title Color Confidence The Digital Photographer's Guide to Color Management
Author Tim Grey Sybex Publisher Sybex



3

ISBN 0596003145
Title Hardware Hacking Projects for Geeks
Author Scott Fullam
Publisher O'Reilly & Associates

Rank	ISBN	Title	Author	Publisher
4	0596005253	Cascading Style Sheets The Definitive Guide 2nd Edition	Eric A Meyer	O'Reilly & Associates
5	0782141307	Mastering Windows Server 2003	Mark Minasi	Sybex
6	1587200953	CCNA Certification Library (CCNA Self-Study exam #640-801), Sixth Edition	Wendell Odom	Cisco Press
7	0764556010	Adobe Creative Suite All-in-One Desk Reference for Dummies	Jennifer Smith Jen deHaan	For Dummies
8	0764543997	Mac OS X Bible Panther Edition	Samuel A Litt	John Wiley & Sons
9	0321241584	Macromedia Studio MX 2004 Training from the Source	Shaowen Bardzell Jeffrey Bardzell	Macromedia Press
10	0735613753	Programming Microsoft Visual Basic NET	Francesco Balena Wintellect, Francesco Balena	Microsoft Press

PrivateDomainHost.com

Virtual hosting allows our clients to experience the quality of service with a minimum investment and maximum services included We guarantee fast and secured services

SUBMIT YOUR SITE TO
800,000 SEARCH ENGINES

All Major Search Engines and Many More.
Submit to a total of 10,000 engines
200,000 engines or to over
700,000 engines. .Free Report Included

LIMITED TIME SPECIAL $9.95 MONTH

Hosting Plans	Business	Corporate
Disk space	400MB	600MB
Transfer	5GB	10 GB
Domains hosted	1	3
POP3 email accounts	100	unlimited
Email aliases	100	unlimited
SubDomains	10	30
MySQL databases	1	4
Price	$6 99/mo	$9.99/mo
FREE Domain Registration		
Setup fee	FREE	FREE
Online Website Builder	Included	Included

Title: Hardware Hacking Projects for Geeks
Authors: Scott Fullam
Publisher: O'Reilly
Price: $43.95
ISBN: 0-596-00314-5
Softcover 348 pages 2004
Reviewed by Keith Schengili-Roberts

The "Hacks" series has proven to be one of the most successful book series out of O'Reilly for the past few years. These titles trade off the original meaning of the word "hack" in the computer community, aimed at those who like to learn the innards of a device or piece of software in order to get the most out of it. The hacks series has covered off online services like eBay and Google to operating systems such as Windows XP and Mac OS X and other things like TiVo and wireless networking. But while all of those books have a very specific topic focus, its safe to say that this book – Hardware Hacking for Geeks – will appeal to those who really like to get down and dirty with their computer hardware. If the thought of taking a hacksaw to an obsolete Mac to make it into an aquarium or hooking your toaster up to the Internet brings a mischievous smile to your face, this is your book.

Hardware Hacking for Geeks details how to build 15 separate projects, and is divided into two main sections that cover off basic and advanced hacking tools and techniques. The basic projects include how to build a portable laptop power supply (using a lot of batteries), the famous "Macquarium" which turns an old first generation Macintosh computer into an aquarium, and how to get more distance out of your wireless connection using tin cans (I kid you not!) For those who have always wanted to dabble in overclocking their CPU there's a project on how to make your own water-based cooling system, how to hack into talking toys to your satisfaction, and for those who always wanted a James Bond car, there's even instructions on how to add a video periscope to your car. And these are all contained in the "easy" section! The more advanced part of the book looks at how to build your own digital video recorder, creating a building-sized display, building an Internet-connected toaster that can tell you the weather, how to build a wearable computer and more.

Probably one of the best things about this book is its detail – the author only assumes a certain eagerness of the reader to get more out of their gear, and does not require knowledge in electronics. Everything is tackled in a step-by-step fashion, so that even if you have never picked up a soldering gun or used a blow torch before, you will soon see how you can best put these tools safely to use in the projects you tackle.

The level of detail is what makes this book a winner – for example, the one aimed at turning an obsolete first-generation Macintosh into an ideal housing for an aquarium not only takes you through the process of properly cutting up and gutting the Mac cleanly and safely, but also looks at how you can build your own water-right aquarium out of Plexiglas to fit inside the old Mac. It then goes on to look at good filtration systems, and also looks briefly at other similar projects, such as putting an aquarium into an old PC monitor. All the while there are plenty of black-and-white photos to step you through each process. The best of these projects rely not only on some basic familiarity with hardware, but with some coding as well. Probably the best example of this is the "Furby Hack" where you not only have to do some radical surgery to your Furby (or other talking toy), but create and add-in your own daughter board which you can then program in C to say whatever you want it to say. The code examples in the book are sufficient to get you started, and are just enough to provide some direction on how you can do some tinkering of your own at the code level.

The harder projects probably shouldn't be tackled until you have some expertise with the tools covered in the first section, and generally require a greater investment in time and hardware. The weather forecasting toaster not only requires you do some significant re-wiring of your pop-up toaster (including how to build your own heating elements that say either "hot" or "cool"), but involves building a "Toast Control Unit" that connects to a PC hooked up to the Internet which then relays temperature information to the toaster. Considering that you are dealing with some considerable voltages here, this is not the sort of project to enter into lightly. For similar reasons, the video periscope for your car is also something not to be done on a whim without some thought as to how to minimize any accidental damage to your vehicle. Still, once you have the expertise with the tools, these projects are a great stepping-stone towards coming up with your own hardware hacks.

This is a book that will set apart the merely geeky from those true hackers willing to get down-and-dirty with their hardware. A terrific guide for people who want to have always hankered at modding and extending their existing hardware.

And personally, I can't wait for a sequel.

RATING

Information content: ****1/2
Readability: *****
Intended for: Beginner/Intermediate
Overall Rating: ****1/2
Contact: O'Reilly 1-800-998-9938

Book Review

eGlobalOnline.com

Making Technology Work for You

VISIT US ONLINE @ WWW.EGLOBALONLINE.COM

- ✓ Retail Sales
- ✓ System Upgrades
- ✓ Computer Repairs
- ✓ Onsite Service
- ✓ Network Setup & Maintenance

Tel 604-872-8276
Toll Free 1-866-792-1168
Fax 604 872-8256
Email info@eglobalcl com

Introducing our new
Service Center
Located in the Whistler area, our new Service Center gives more convenience to our customers, when they need it most.

We've got You Covered
From Sea to Sky

PMI 512MB PC3200 KIT
PC3200 / 2 X 256MB DUAL CHANNEL KIT / 2.5-3-3-7 Latency

$155.98

Capable of achieving latency 2.5-3-3-7 PMI3200-8128DFH optimizes overall system performance with superior stability Lifetime Warranty

LABTEC USB WEBCAM
An Affordable Easy-to-Use Webcam

$26.98

The Labtec WebCam makes it easier than ever to visually communicate over the Internet. Now you don't have to travel to see your loved ones.

TT SILENT BOOST HSF
22.5 CFM / 21 dBA / For AMD Athlon XP Up to 3400+

$34.98

High performing "Hydro Wave Bearing" fan, increases airflow by air intake all directions All copper base provides better heat transfer

AOC 17" FLAT MONITOR
.25MM DP / 1280 x 1024 / Black

$136.98

The 7F offers a minimal-distortion flat face. Its precise resolution and superfine .21mm dot pitch enhance on-screen detail.

CREATIVE INSPIRE T2900
2-Way Satellite Speakers w/ Remote

$57.98

60 Watts of System Power two-way speaker design the unique Audio Control Pod, and additional features like removable stands

EPSON 1260 SCANNER
Perfection 1260 Photo Scanner / 1200 x 2400 DPI / USB

$73.98

Looking for affordable, user friendly solutions for high speed high quality scans? Meet the Epson Perfection 1260 Photo.

BENQ FP767 17" LCD
1280 X 1024 / 500:1 Contrast Ratio / 16ms

$550.98

A modern design, integrated multimedia speakers and super fast 16ms response time make the BenQ FP767 the ultimate choice.

NEC 2500A DVD WRITER
8X DVD+R / 4X DVD+RW / 32X CD-R / 16x CD-RW

$136.98

The ND-2500A offers the fastest DVD recording currently available in the market together with fast CD recording and excellent read performance.

50 PACK CD-R SPINDLE
700MB / 80 Minutes / 48X Max Write Speed

$15.98

These recordable compact discs feature write speed compatibility at 48X. Each CD-R offers 80 minutes of audio recording time or 700MB of data.

SMC CABLE/DSL ROUTER
SMC7004VBR / 4-Port Switch / SPI Firewall

$39.98

The SMC7004VBR Router is the ideal networking solution for home and business users that are looking for a complete networking solution.

RADEON 9200SE
Powercolor Radeon 9200SE / 128MB DDR

$64.98

Radeon 9200SE delivers a dazzling 3D experience to PC enthusiasts with awesome performance! The 9200SE is optimized for todays applications!

LEADTEK TV2000 XP
Leadtek Winfast TV2000 XP Expert Edition / Stereo TV

$78.98

WinFast TV2000 XP Expert is your best personal digital video recorder with video editing & authoring

eGlobal
PC Builder

Customizable PC's made *Simple, Easy & Online*
Build your own Desktop PC, Notebook, or Server the way you want

Custom Personal Computers built to your liking Simple, Easy and available Online! www.eglobalonline.com

Photon Value PC
- AMD 2000A+ Processor
- PCCHIP SIS740 W/VIDEO/AUDIO/LAN
- 256MB PC2700 Memory
- Panasonic 1.44 HD MB Floppy Drive
- 40GB 7200RPM Hard Drive
- 52X MAX EIDE CD-ROM
- eGlobal 17" Case w/ 300W PSU 180W Speaker Set
- PS/2 Keyboard
- PS/2 2 Button mouse w/ wheel

$299

*Monitor and speaker above

Ion Value PC
- Intel Celeron 2.4GHz Processor
- ECS SIS661FX-M w/ Video / Audio / LAN
- 256MB PC3200 Memory
- Panasonic 1.44 HD MB Floppy Drive
- 40GB 7200RPM Hard Drive
- 52X MAX EIDE CD-ROM
- eGlobal 17" Case w/ 350W PSU
- 180W Speaker Set
- PS/2 Keyboard
- PS/2 2 Button mouse w/ wheel

$416

*Display and speaker above

Tundra Lite Notebook
- Intel Celeron 2.4GHz Processor
- SiS 645DX + SiS962 Chipset
- 256MB PC2100 DDR/MM Memory
- 15.0" XGA TFT Display
- 20GB IBM/Hitachi 4200RPM Hard Drive
- CD-ROM/DVD-ROM Combo Drive
- 5 x USB 2.0 IEEE1394 Firewire IrDA TV-Out
- 10/100 Ethernet, V.90/V.92 Fax Modem
- AC'97 Audio, two built-in Speakers

$1254

*Monitor and speaker above

eGlobal recommends Microsoft® Windows® XP Home

1 Year Warranty
on *ALL OEM Parts*
3 Year Warranty
on Labour for all PC Systems
Top notch service and great prices!

Eglobal Computers - Vancouver
#16 2949 Main Street,
Vancouver B C - V5T 3G4

Hours of Operation
Mon - Friday 9 30am 6 30pm
Sat - 10 00am 5 30pm
Sun & Holidays Closed

Eglobal Sea to Sky Service Center
#2 7431 Prospect St, PO Box 340,
Pemberton, B C , V0N 2L0

Hours of Operation
Mon - Friday 9 00am 6 00pm
Sat 10 00am 3 00pm
Sun & Holidays Closed

BURNABY

A-Power Computer (p 13)
3764 East Hastings St,
(604) 570-0766

Mac Station (p 22)
207A - 3430 Brighton Ave
(604) 420-5224
www.macstation.com

Compu 2000
108 3989 Henning Drive
(604) 436 2333

Elitech Computers (p 25)
1693 – 4500 Kingsway
(604) 433-3210
www.elitechcomputers.com
sales.metrotown
@elitechcomputers.com

NCIX.com (p 2, 32)
505B Kingsway
(604) 451 8682
www.ncix.com
sales@ncix.com

A-Link Computer
(604) 438 5333

Alpine Computers
(604) 415-9933

Big Planet Computers
(604) 291-8853

Dexton Computers
(604) 433-9866

Labtop Computers
(604) 526-1770

COQUITLAM

Elitech Computers (p 25)
201-403 North Rd
(604) 931-5809
www.elitechcomputers.com
sales.coquitlam
@elitechcomputers.com

Ever Tech Computers
(604) 937-4727

F X Computers
(604) 937 3713

Mytech Computers Ltd
(604) 945-7541

Ume Plus Computers Inc
(604) 9 36-8171

Westwood Computers
(604) 942 0370

DELTA

Aerotech Computers
(604) 851 2376

LANGLEY

ATOP Computer
(604) 514-9130

Blue Collar Computers
(604) 882-8830

EXPIA Technology (P34)
21314 80th Ave
(604) 888-5285

Greg's Computers
(604) 534-3887

Walnut Grove Computers
(604) 888 3873

MAPLE RIDGE

Prime Time Computers
(604) 460-8555

Techquest Computers
(604) 466-6377

Mac Station (p 22)
22353 Lougheed Highway
(604) 466-0190
www.macstation.com

NEW WESTMINSTER

Am B Pc Computers
(604) 540-9222

Bits N Bytes Computers
(604) 520 1958

Rent A Nerd Computer Services
(604) 551-8552

NORTH VANCOUVER

Acusel Com Computers
(604) 984-6247

Computer Depot
(604) 983-8130

ICS Computers
(604) 984-7400

W S Computers
(604) 986-7680

PORT COQUITLAM

A link Computer
118-2099 Lougheed Hwy
(604) 469-0006

Luxor Computers
(604) 945-0019

PORT MOODY

Ever Tech Computers
(604) 937-4728

RICHMOND

Addax Computer
(604) 244-0783

A-Power Computer (p 13)
#101-11211 Bridgeport Rd,
(604) 273-8668

A Link ComputerSystem
170 12111 Bridgeport Rd
(604) 214-9473

Elitech Computers (p 25)
160 - 226B No 5 Rd
(604) 303 - 6923
www.elitechcomputers.com
sales.richmond
@elitechcomputers.com

Infomicro Technology Inc
106 11400 Bridgeport Rd
(604) 214-7703

Canadian Computer Store
(604) 303 2488

CE Computer Outlet
(604) 278-2633

City Computer Systems
#150 12860 Clarke Place
(604) 270-3747

OCC Technologies
145-4471 No 6 Rd
(604) 821 1108

Discovery Computers
(604) 241-8412

ICI Computer
1780-4311 Hazelbridge Way
(604) 273 1368

Jascom Computers Inc
(604) 275-8992

Jetview Electronics
288-13986 Cambie Rd
(604) 278-4368

JRS Computers Inc
(604) 273-3186

LCF Advanced Technology Ltd
(604) 303 8628

Main Computers Inc
(604) 273-2611

MDI Internet Inc
#138 2981 Simpson Rd
(604) 288-1080

Jetview Electronics (p 28)
#288 13986 Cambie Rd
(604) 306 1708

PC Computers
(604) 273-8682

Sonex Computer (p 15)
Unit 140 4800 No 3 Rd
(604) 717 6111
www.sonexpc.com
info@sonexpc.com

T L D Computers Inc
(604) 272-6000
Tai Tech Computers Systems
(604) 207-0299

Take-A-Byte Computers
(604) 271 2222

Unique Personal Computers
(604) 448-0367

SURREY

Golden Top Computer
10269 128th St
(604) 588 6538

ATOP Computer
10083 136A St
(604) 930-4838

Acn Computers
(604) 543-9286

Aerotech Computers
(604) 951-4000

G S Computers
(604) 589-3555

Stream Computers Ltd
(604) 535-8655

MBS Computers
#110 7110 120th Street
(604) 572-8722

Trr Tech Computers Ltd
(604) 534-1790

VANCOUVER

ATIC Computer
45 E. Broadway
(604) 876-8859

Cal's Computer (p 26)
3083 Broadview Hwy
(604) 437 5551

CSP Computer (p 21)
3553 Kingsway
(604) 439-9100
www.cspcomputer.bc.ca
csp@cspcomputer.bc.ca

eGlobal (p 11)
#16 2949 Main Street
(604) 672-8278
www.eglobalonline.com
info@eglobalci.com

Nextgen Computers
5 111 W Broadway
(604) 713-8538

NCIX.com (p 2, 32)
1843 W Broadway
(604) 739-9985
www.ncix.com
sales@ncix.com

FrontierPC.com
105-1755 W. Broadway
(604) 739-8060

Internet Data / Serenity Network (p 16, 17)
2388 555 West Hastings
(604) 687-5336
www.serenitynet.ca

Intertech Computers
4317 Fraser St
(604) 872 7337

1stDateRecovery.com
745-1050 W Pender St
(604) 681-3770

Promar Canada
8275 Sherbrooke Street
(604) 322 1799

Mac Station (p 22)
#2 - 1109 Homer Street
(604) 806-6227
www.macstation.com

Neocode Software
288-425 Carrall St
(804) 638-0666
www.neocodesoftware.com
sales@neocodesoftware.com

Private Domain Host (p.27)
www.privatedomainhost.com

SBS Tech Services Inc (p10)
www.sbstechservices.com
support@sbstechservices.com

Skyway West Business Internet Services (p 4)
(604) 482 1225
www.skywaywest.com
sales@skywaywest.com

Code II Computers Inc
(604) 876-0399

Compatible Computers Inc
(604) 322-0322

Ctech Computers & Service
(604) 438-4589

Business Pro Computers
(604) 871-0194

Legend Computers
(604) 279-8856

United Computers
(604) 730-1286

Varsity Computers
(604) 222-2326

Vastech Computer (p-11)
3967 Main Street
(604) 872-4245
www.vastechcomputer.com
sales@vastechcomputer.com

WebLogix.net Hosting (p.12)
www.weblogix.net

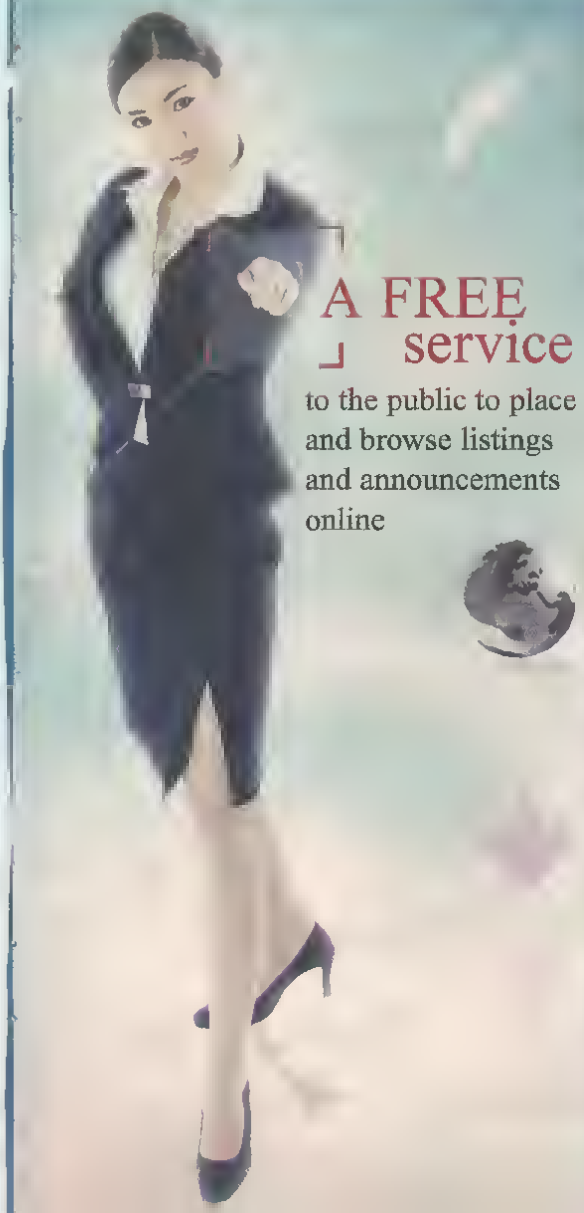
TORONTO

TigerDirect.ca (p 9)
171 Esna Park Drive
Markham, Ontario L3R 4J1
1-800-800-8300
www.tigerdirect.ca

Want to Buy, Sell, Trade or Barter.

Visit www.performancepccanada.com

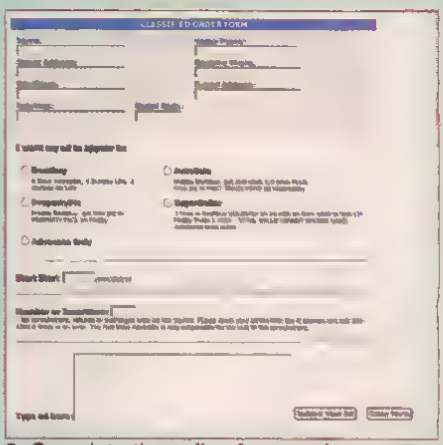
for your general classified ads in a variety of categories



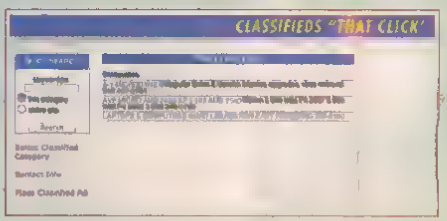
A FREE service to the public to place and browse listings and announcements online

3 Simple Steps

1. Choose your desired category and sub-category



2. Complete the online form, and press "Submit"



3. Your message will automatically be listed on the website

NCIX PC

Amazing **Quality**
Outstanding **Performance**
Excellent **Value**

PC Builder

Built **EXACTLY** the way you want it.

intel inside pentium

intel premier

FREE NEXT DAY SHIPPING IN GREATER VANCOUVER

on any order* with all other $200 purchased before May 31st, 2004.

* Does not include items requiring freight shipping & assembly time. Products in stock and updated before 1PM (PST). Subject to availability and limited quantities. Offer may be changed or withdrawn without notice. Valid only for orders placed through NCIX.com. Delivery limited to Greater Vancouver area including West Vancouver, Burnaby, Richmond, Delta, White Rock, Surrey, Langley, Abbotsford, Chilliwack, Pitt Meadows, Maple Ridge, Port Coquitlam, Port Moody, Coquitlam & Belcarra.

NCIX PC EXTREME systems. The ultimate in performance.

PC Builder AMD® Extreme

AMD® Athlon™ 64 2800+ System

$1599

Enter SAVINGS CODE 11938-1498
Add Windows® XP Home $119
Add Windows® XP Pro $189

- AMD® Athlon™ 64 2800+ processor
- Radeon 9600XT video card with 256MB RAM
- Asus K8V SE Deluxe with SATA RAID
- 512MB Kingston HyperX PC3700 Dual Channel memory
- 120GB Seagate® 7200 RPM Hard Drive w 8 meg cache
- 4x2x12x LiteOn DVD±RW w software
- Creative Sound Blaster Audigy 2 ZS 7.1 sound card
- Logitech® Elite keyboard & MX500 optical mouse
- **Coolermaster TAC T01 Wavemaster Aluminum Case**
  Antec True Blue 480W power supply

UPGRADE & CONFIGURE THIS PC @ NCIX.com

PC Builder Intel® Extreme

Intel® Pentium® 4 2.66 GHz System

$1729

Enter SAVINGS CODE 11957-1918
Add Windows® XP Home $139
Add Windows® XP Pro $189

- Intel Pentium 4 3.0GHz processor
- Radeon 9600XT video card with 256MB RAM
- Asus P4C800-E Deluxe motherboard with SATA RAID
- 512MB Kingston HyperX PC3700 Dual Channel memory
- 120GB Seagate® 7200 RPM Hard Drive w 8 meg cache
- 4x2x12x LiteOn DVD±RW w software
- Creative Sound Blaster Audigy 2 ZS 7.1 sound card
- Logitech® Elite keyboard & MX500 optical mouse
- **Coolermaster TAC T01 Wavemaster Aluminum Case**
  Antec True Blue 480W power supply

UPGRADE & CONFIGURE THIS PC @ NCIX.com

Great value. Great Performance. Configured NCIX PC systems.

NCIX PC Entra 1200

AMD® Duron™ Value System

$439

Enter SAVINGS CODE 11738-1818
Add Windows® XP Home $119
Add Windows® XP Pro $189

- AMD® Duron™ 1.6GHz processor
- DFI A250-TL motherboard w video, sound & LAN
- 256MB Infineon PC2100 DDR memory
- 40GB Maxtor® 7200 RPM Hard Drive
- 52x32x52x LiteOn CD-Rewriter w. software
- Microsoft® Multimedia keyboard & optical mouse
- Antec SLK1600 case w 300W Antec power supply

NCIX PC Entra 2100

AMD® Athlon™ 64 System. Best Value!

$1049

Enter SAVINGS CODE 11739-1698
Add Windows® XP Home $119
Add Windows® XP Pro $189

- AMD® Athlon™ 64 2800+ processor
- Radeon 9600XT video card w 128MB RAM & TV out
- Soltek K8AN-RL nForce 3 motherboard w. SATA RAID
- 512MB Samsung PC3200 DDR memory
- 80GB Seagate 7200 RPM Hard Drive
- 4x2x12x LiteOn DVD±RW w software
- Microsoft® keyboard & mouse / Antec SLK1600 case

NCIX PC Vesta 1200

Intel® Celeron® Value System

$499

Enter SAVINGS CODE 11740-1918
Add Windows® XP Home $119
Add Windows® XP Pro $189

- Intel® Celeron® 2.4GHz processor
- DFI 661EX-MLVE motherboard w. video, sound & LAN
- 256MB Infineon PC2100 DDR memory
- 40GB Maxtor® 7200 RPM Hard Drive
- 52x32x52x LG CD-Rewriter w software
- Microsoft® Multimedia keyboard & optical mouse
- Antec SLK1600 case w 300W Antec power supply

PC Builder systems. You configure it. We build it EXACTLY the way you want.

PC Builder AMD® Value

AMD® Athlon™ 2500+ based System

$739

Add Windows® XP Home $119
Add Windows® XP Pro $189

- AMD® Athlon™ 2500+ processor
  Radeon 9600SE video card with 128MB memory
- Soltek 75FIN2-4 nForce 2 motherboard w. sound & LAN
- 512MB Samsung PC2700 DDR memory
- 40GB Maxtor® Hard Drive / 52x32x52x LiteOn CD-RW
- Microsoft® Multimedia keyboard & optical mouse
- Antec SLK1600 case w. 300W Antec power supply

PC Builder AMD® Performance

AMD® Athlon™ 2500+ based System

$1198

Add Windows® XP Home $119
Add Windows® XP Pro $189

- AMD® Athlon™ 2500+ processor
- Radeon 9600XT video card with 128MB memory
- DFI Infinity motherboard w SATA, sound, LAN & Firewire
- 512MB OCZ Dual Channel PC3200 DDR memory
- 120GB Seagate® Hard Drive / 4x2x12x LiteOn DVD±RW
- Logitech® Elite keyboard & MX500 optical mouse
- Antec LANBOY Aluminum case w. 350W power supply

PC Builder Intel® Performance

Intel® Pentium® 4 2.66 GHz System

$968

Add Windows® XP Home $119
Add Windows® XP Pro $189

- Intel® Pentium® 4 2.8GHz processor
  GeForce FX 5200 video card with 64MB memory
- Intel D865PERL motherboard w. SATA, sound & LAN
- 512MB Samsung PC3200 DDR memory
- 120GB Seagate® Hard Drive / 16.52x CD-ROM
- Microsoft® Multimedia keyboard & optical mouse
- Antec SLK2600AMII case w 300W power supply

Customize these systems at NCIX.com

Enhance your system with these great options!

Products available at special bundle pricing with system only!

LEXMARK x74 All in-One Printer Scan/Copy/Fax/Print

FREE

After $50 Lexmark Mail in Rebate

While quantities last!

Lexmark e321 Laser Printer	$366
Epson C64 Ink Jet Printer	$69
Epson C64 Ink Jet Printer	$89
Canon i250 Bubble Jet Printer	$69
Canon Powershot A70 3MP Digital Camera	$419
BenQ DC2300 2MP Camera Digital Camera	$99

BENQ FP731 Black/Silver 17" LCD Monitor

Add $498.98

$498.98 when purchased separately.

LG Flatron 1710B H 17" Flat CRT Monitor	$369
BenQ FP92 19" Flat CRT Monitor	$269
BenQ FP991 19" LCD TFT Monitor	$839

KLIPSCH THX ProMedia Ultra 5.1 THX Speakers

Add $548.98

$649.98 when purchased separately.

Logitech Z640 5.1 Speakers	$86
Logitech Z680 5.1 Speakers	$408
Creative Labs T7700 7.1 Speakers	$149

Bytecc 8-in-1 External Card Reader

BYCR Reads and writes CF, SM, SD, MMC, MS & more!

Add $18.98

$28 when purchased separately.

AMD 64

AMD Solution Provider PLATINUM

NCIX.com recommends Microsoft® Windows XP® Professional

* Current pricing at press time. Actual price may differ at time of purchase.

NO HIDDEN FEES!*

We gladly accept Interac, Visa, MasterCard, American Express, Diner's Club & PayPal

NCIX.com

Great Technology, Service & Selection

Visit www.NCIX.com to order!

FAST & EASY shipping anywhere in Canada

THREE GREAT LOCATIONS!

BURNABY 5068 Kingsway Burnaby BC, V5H 2E7 PH 604.451.8682 FAX 604.451.8611
VANCOUVER 1843 W Broadway Vancouver BC, V6J 1Y5 PH 604.738.9885 FAX 604.739.0513
RICHMOND #1063-8300 Capstan Way Richmond, BC, V6X 4B7 PH 604.233.0308 FAX 604.604.233.0313

Toll Free 1-888-NCIX888

M-F 9.30 AM to 6:30 PM Sat 10 AM to 5.30 PM (PST)
M-F 9.30 AM to 6:30 PM Sat 10 AM to 5:30 PM (PST)
M-F 9.30 AM to 6:30 PM, Sat & Sun: 10 AM to 5.30 PM (PST)